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2542. Allport, G. W. Personalistic psychology as science: a reply. *Psychol. Rev.*, 1946, 53, 132-135.—Skaggs' expressed conviction that 'ideographic' knowledge does not deserve to be called 'scientific' (see 20: 33) is discussed to correct misrepresentation of some of the author's views. After clarifying several points at issue, Allport takes the position that prestige for psychology will scarcely be won by aping those sciences who at this particular moment enjoy exalted status.—M. A. Tinker (Minnesota).

2543. Allport, G. W., & Boring, E. G. Psychology and Social Relations at Harvard University. *Amer. Psychologist*, 1946, 1, 119-122.—This note announces "changes in research and instruction in psychology at Harvard University, changes consequent upon the establishment of the new Department of Social Relations and the transfer of social psychology and clinical psychology from the Department of Psychology to the new Department."—N. R. Bartlett (Johns Hopkins).

2544. Anderson, T. W. On card matching. *Ann. math. Statist.*, 1943, 14, 426-435.—Theoretical considerations of the probability of successes under conditions of random matching develop formulae useful in the evaluation of matching methods.—F. Gehlmann (Chicago).

2545. Ballard, P. B. Professor C. Spearman. *Brit. J. educ. Psychol.*, 1946, 16, 1-4.—Obituary and portrait.—R. C. Strassburger (St. Joseph's College for Women).

2546. Bircher, E. Warum Wehrpsychologie? (Why military psychology?) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 61-65.—Although many of the greatest military leaders of the past have made use of psychology intuitively and considerable work has been reported recently in Germany on problems of military psychology, Switzerland has done little in this direction. Since the basis for war is the individual, the effects of modern war on him must be studied carefully. Group psychology is becoming increasingly important, and its basic principles should be taught to all leaders. Research ought to be brought within a specific framework.—R. B. Ammons (Denver).

2547. Boring, E. G. [Chm.] The Policy and Planning Board of the American Psychological Association. *Amer. Psychologist*, 1946, 1, 162-164.—N. R. Bartlett (Johns Hopkins).

2548. Bryan, A. I. Summarized proceedings and reports of the ninth annual meeting of the American Association for Applied Psychology. *J. consult.*

Psychol., 1945, 9, 287-305.—S. G. Dulsky (Personnel Inst., Chicago).

2549. Burt, C., & Myers, C. S. Charles Edward Spearman: 1863-1945. *Psychol. Rev.*, 1946, 53, 67-71.—Biography, with emphasis upon professional career and psychological contributions. Portrait.—M. A. Tinker (Minnesota).

2550. Carmichael, E. B., McBurney, R., & Cason, L. R. A trap with holder for handling vicious laboratory animals such as wild rats. *J. Lab. clin. Med.*, 1946, 31, 365-368.

2551. Delay, J. Psychiatrie et psychologie. (Psychiatry and psychology.) *Ann. méd.-psychol.*, 1943, 101, 160-173.—Facts, methods, and viewpoints of psychology which have been of service in the psychiatric clinic are reviewed, with special mention given to the Binet-Simon intelligence tests, electroencephalography, humoral psychology, and reflexological and behavioristic approaches. Reactions within psychology against mechanistic atomism have proved of particular value to psychiatry. Instead of the older artificial decomposition of the mental life into elements and contiguity associations, the newer psychiatry seeks to understand in a global way the dynamic structure of the patient's personality in its adjustment problems. While Maine de Biran, Bergson, and William James had long drawn attention to this approach, it remained for psychiatry to be impressed by Gestalt psychology and the phenomenology of the Würzburg school. Finally, the characterology of Kretschmer and of Klages contains suggestions of value to psychiatry, which is concerned not with explaining mental functions and establishing their laws but rather with understanding human personalities.—F. C. Sumner (Howard).

2552. Dixon, W. J. Further contributions to the problem of serial correlation. *Ann. math. Statist.*, 1944, 15, 119-144.—F. Gehlmann (Chicago).

2553. Dwyer, P. S. A matrix presentation of least squares and correlation theory with matrix justification of improved methods of solution. *Ann. math. Statist.*, 1944, 15, 82-89.—F. Gehlmann (Chicago).

2554. Firgau, H. J. Die genetische Ganzheitspsychologie und die entwicklungspsychologische Lehre von der Ausdifferenzierung des Lebens. (Genetic holism psychology and the developmental psychological theory of differentiation in life.) *Arch. ges. Psychol.*, 1943, 112, 23-50.—The author criticizes Gerhard Galle's experiment on action in a briefly presented field (*Arch. ges. Psychol.*, 1942, 110, 361-452) which he thinks typifies the special form of Gestalt psychology known as genetic

Ganzheitspsychologie. The Galle experiment sought to answer the following question: Does a subject always act rationally, insightfully in the sense of the given instruction, or do emotional or affective *Komplexqualitäten* determine the action even when the instruction is unambiguously stamped in consciousness? The subjects had to shove along a board in the shortest possible path and, as quickly as possible, a stone from mark A to mark B when the direct path was barred by obstacles. While the criticism is levelled successively at the problem formulation, experimental methodology, results, and theoretical presuppositions, it narrows to an attack on (1) the whole phenomenological-analytical approach which promotes, not a real, but an apparent knowledge of causality and (2) the question-begging evidenced in assuming that "the rational, insightful" means "in the sense of the given instruction," that the instruction is present in consciousness during the action, that determining factors other than the verbal instruction are emotional or near-emotional *Komplexqualitäten*, that verbal instruction is the only one operative, and that evolution is from a blind, diffuse, instinct-like, insightful, undifferentiated consciousness to a reflective, insightful, differentiated consciousness.—F. C. Sumner (Howard).

2555. Greville, T. N. E. On multiple matching with one variable deck. *Ann. math. Statist.*, 1944, 15, 432-434.—W. S. Hunter (Brown).

2556. Haldane, J. B. S. Moments of r and χ^2 for a fourfold table in the absence of association. *Biometrika*, 1945, 33, 231-233.

2557. Hedbaek, A. E. [Ed.] *Geriatrics*. Minneapolis: American Geriatrics Society. Vol. 1, No. 1, January-February, 1946. Bimonthly. \$3.00 per annum.

2558. Herrick, C. J. Scientific method and human values. *Amer. Scientist*, 1946, 34, 239-245.—The notion that science knows no values is inadequate. Values are coextensive with life, for every satisfaction of a need is a value, including the prosecution of research. The social sciences must point the way to better methods of solving particular problems of human adjustment in the light of the highest human values. Effective action will involve, however, far greater collaboration between the sciences and the humanities than we have yet seen.—D. K. Spelt (Arkansas).

2559. Hilgard, E. R. Psychological factors in the restoration of the civilian economy. *J. consult. Psychol.*, 1946, 10, 15-22.—Psychologists should make a more courageous approach to matters of public concern rooted in economics. In relation to the economic enterprise, psychologists can serve in three general capacities: (1) as technical assistants in production (the services commonly called industrial psychology); (2) as research workers in assessing public opinion and morale; and (3) as molders of opinion. Our participation in the last-named activity is "as much in order as the participation, say, of physicians in an effort to control

smallpox or venereal disease."—S. G. Dulsky (Personnel Inst., Chicago).

2560. Hotelling, H. Some new methods in matrix calculation. *Ann. math. Statist.*, 1943, 14, 1-34.—F. Gehlmann (Chicago).

2561. Jenkins, W. L. A quick graphic method for product moment 'r.' *Educ. psychol. Measmt.*, 1945, 5, 437-443.—A detailed procedure for graphic determination of the product moment 'r' is presented. A mathematical proof and an empirical test of the method are also included.—S. Wapner (Rochester).

2562. Jørgensen, J. *Psykologi paa biologisk Grundlag*. (Psychology as founded upon biology.) 2 vols. Copenhagen: Ejnar Munksgaard, 1941, 1942. Pp. 1-188; 189-328.—An explanation of psychology from the biological point of view is treated in the first volume under the following headings: biological relationships; main problems, including vitalism and mechanism, biological structure and organization, wholes and parts, the nervous system, and hormones; the manifold organization in life; chief life functions; learning ability; the meaning of psychology; and the problems of consciousness. Volume 2 deals with the classification of consciousness, including discussion of intelligence and thought, will, memory, emotions, fantasy, imagery, insight, etc.; responses to stimuli; and sensory studies of the organism.—O. I. Jacobsen (Army of the U. S.).

2563. Jung, C. G. *Psychologische Betrachtungen. Eine Auslese aus seinen Schriften, zusammengestellt und herausgegeben von Dr. Jolan Jacobi*. (Psychological observations; a selection from Jung's writings, arranged and edited by Dr. Jolan Jacobi.) Zürich: Rascher, 1945. Pp. 455.

2564. Kantor, J. R. The aim and progress of psychology. *Amer. Scientist*, 1946, 34, 251-263.—The progress of any science may be seen as its concepts pass through three stages: the substance-property stage, the statistical-correlation stage, and the integrated-field stage. Psychology has, like other sciences, attained the third stage. It recognizes that a psychological event must be treated as a function of stimulus- and response-functions, generated by historical interbehavior between a stimulus object and an organism; that it occurs in a particular setting, by virtue of the action of some medium. The application of these terms is illustrated in the text and by a diagram.—D. K. Spelt (Arkansas).

2565. Kendall, M. G. The treatment of ties in ranking problems. *Biometrika*, 1945, 33, 239-251.

2566. Kishen, N. On the design of experiments for weighing and making other types of measurements. *Ann. math. Statist.*, 1945, 16, 294-300.—F. Gehlmann (Chicago).

2567. Lacey, O. L. A celluloid retrace door. *J. comp. Psychol.*, 1946, 39, 5.—Description and diagram of a retrace door for mazes.—K. F. Muenzinger (Colorado).

2568. Lalande, A. *La philosophie en France, 1942-1945*. (Philosophy in France, 1942-1945.) *Phil. Rev.*, N. Y., 1946, 55, 1-23.—The first review

since 1942 to come out of France informs us that intellectual life, manifested in a surprising amount of scientific production, has continued there in spite of war and postwar conditions. Among the works produced, the most important to the psychologist are *Introduction à la Psychologie* by Paul Guillaume, the chief exponent of behaviorism in France; and the first volume of *Traité de Psychologie générale* by Maurice Pradines, who prefers the genetic method to the experimental as giving more freedom to research. Two works dealing with logic as well as psychology are *Classes, Relations et Nombres* by Jean Piaget, who by means of genetic analysis clarifies his logical concepts; and *L'Idée de Nécessité* by Jean Laporte. Other writings of interest are *Le Caractère* by Albert Burloud, a short work on the psychology of drives; *La Structure du Comportement* by Merleau-Ponty, an analysis of reflexes, habits, and volition leading to a monistic interpretation of the mind-body relationship; and *La Sensation et l'Image* by Edgar Wolff.—K. Murdoch (New York City).

2569. Lundholm, H. The psychological self in the philosophies of Köhler and Sherrington. *Psychol. Rev.*, 1946, 53, 119-131.—In the history of natural philosophy is found the interminable conflict: bias versus fact. Where bias is strong, fact deteriorates; and where respect for fact is strong, bias breaks down. Sherrington's view that body and mind reciprocally act upon each other is noted with approval. Though Sherrington confesses to this view, he holds it theoretically impossible. The author considers that the unbiased reader will feel that Sherrington has spoken truly of life while the biased reader may object that what he says is not scientific. "Köhler attempts to parallel in psychology the ways of the natural sciences proper." There is no place for active finite minds in his philosophy. There is a deterioration of fact. "Whitehead's verdict over bigots who reject half of the facts applies to Köhler but not to Sherrington."—M. A. Tinker (Minnesota).

2570. Mann, H. B. On a problem of estimation occurring in public opinion polls. *Ann. math. Statist.*, 1945, 16, 85-90.—F. Gehlmann (Chicago).

2571. Miller, D. L. The meaning of evolution. *Amer. Scientist*, 1946, 34, 246-250.—Evolution is not a process of making explicit that which is already implicit. "One cannot hold the belief that reality is fixed and eternal and yet believe in evolution." Actually, the scientist continually faces real novelties and must formulate new laws covering both old and new observations. In this sense, evolution means that purely deductive logic is inadequate for science, since these novelties are not only unpredicted for the most part but are in effect unpredictable.—D. K. Spelt (Arkansas).

2572. Mises, R. v. On the classification of observation data into distinct groups. *Ann. math. Statist.*, 1945, 16, 68-73.—F. Gehlmann (Chicago).

2573. Morgenthaler, W. Der Psychologe und die heutige Zeit. (The psychologist and the current

scene.) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 3-9.—In peacetime, psychology tended to develop a narrowness and separation from many important life problems. The war brought about many changes. The building of a new outlook in psychology is necessary, and this can be based on an intensified awareness of the importance of the human personality. Psychology must actively participate in the building of a new world culture, and Swiss psychologists (because of their peculiar position in Europe) must be leaders in this movement. It is hoped that this new journal, *Schweizerische Zeitschrift für Psychologie und ihre Anwendungen*, will contribute to the solidarity of Swiss psychology both in its relations within Switzerland and with foreign countries.—R. B. Ammons (Denver).

2574. Morris, H. P., & Dunn, T. B. A restraining jacket for the rat. *J. nat. Cancer Inst.*, 1945, 5, 269-270.—A restraining jacket, made out of wire mesh, was designed to keep rats from reaching certain parts of the body with mouth or teeth. The jacket has been used for as long as 6 weeks without ill effects on the rat. It was found extremely useful when it was desired to use rats for close observation, such as under a dissecting microscope.—C. P. Froehlich (U. S. Off. Educ.).

2575. Piaget, J. Les trois structures fondamentales de la vie psychique: rythme, régulation et groupement. (The three fundamental structures of psychic life: rhythm, equilibrium, and grouping.) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 9-21.—Psychology must be interested in the construction of a 'general morphology' of mental life, using terms which are capable of precise definition. Analysis of the functions related to the means of action shows a progressive development through phases of rhythm, equilibrium, and grouping. Rhythm is found initially in the field of perception with reversible illusions. Examination of more complex action systems shows rhythm being replaced by cyclic equilibrium, where activity such as opening and closing the mouth can be analyzed into positive and negative phases. Intelligence can be defined in terms of the ability to work reversibly with groupings such as in the case of the mathematical processes of addition and subtraction. It appears that rhythm, equilibrium, and grouping also constitute the phases of evolution of the affective processes.—R. B. Ammons (Denver).

2576. Rey, A. La psychologie appliquée, discipline para-médicale. (Applied psychology, a para-medical field.) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 116-122.—With the increase in the number of practicing psychologists, it has become especially desirable to work out an adequate training program. It would seem that scientific foundation is particularly important. The errors of noncollaboration with physicians and of overemphasis of a particular test or method of psychotherapy must be guarded against. A 3-year university training program is outlined, giving emphasis to scientific background and special psychological techniques. Applied

psychology should develop as a discipline closely related to and under the protection of medicine.—*R. B. Ammons* (Denver).

2577. Scheffé, H. Statistical inference in the non-parametric case. *Ann. math. Statist.*, 1943, 14, 305-332.—*F. Gehlmann* (Chicago).

2578. Staehelin, J. E. Zur Frage der gesetzlichen Regelung der Tätigkeit der nichtärztlichen psychologischen Berater. (The question of legal regulation of nonmedical psychological counselors.) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 109-116.—Few cantons have sought to regulate nonmedical psychological counselors. It seems desirable to divide these people into several categories: those with doctors' degrees in psychology, those qualified to aid physicians in special examinations (e.g., intelligence testing), industrial psychologists, school and child psychologists, and those dealing with exceptional groups (e.g., the feeble-minded). A careful distinction should be made between these groups and between the psychologist and physician as to qualifications and type of psychotherapy to be undertaken. These distinctions should be implemented legally.—*R. B. Ammons* (Denver).

2579. Troyer, W. L. Mead's social and functional theory of mind. *Amer. sociol. Rev.*, 1946, 11, 198-202.—This is a presentation and discussion of Mead's theory of mind in relation to nature and of his "social behaviorism," with special examination of the internal organization of the social act, the biological and social bases of mind, and the object as a collapsed act.—*V. Nowlis* (Iowa).

2580. Umberger, E. J. A laboratory holder for immobilizing experimental rats. *J. Lab. clin. Med.*, 1946, 31, 369-371.

2581. [Various.] Sequential analysis of statistical data: applications. (Rev. ed.) New York: Columbia University Press, 1945. Pp. 300. \$6.25.—Sequential analysis is a new method of analyzing data, whereby data are analyzed while they are being collected rather than after, thus effecting an average reduction of about 50% in the amount of data needed and eliminating a large proportion of the errors to which conclusions based on sampling are liable.—*W. S. Hunter* (Brown).

2582. Volkelt, H. Abwehr eines Angriffes auf die genetische Ganzheitspsychologie. (A defense against an attack on genetic holism psychology.) *Arch. ges. Psychol.*, 1943, 112, 202-215.—In behalf of Galle, a former colleague now on the East Front, Volkelt replies to Firgau's attack (see 20: 2554). In singling out the study by Galle for an attack, Firgau is in reality seeking to discredit the whole research tendency of *Ganzheitspsychologie*. Furthermore, he seems to be satisfied with nothing short of a perfect experiment. In regard to Firgau's criticism of Galle's contribution to the psychology of will as being purely phenomenological, Volkelt defends Galle as not being epistemological or metaphysical and as not confusing "phenomena" with phenomenology. Wundt, the forefather of genetic *Ganzheits-*

psychologie, maintained that evolution at its deepest is creative synthesis. Both the *Ganzheitspsychologie* of the Leipzig school and that of Narziss Ach highly endorse experimentation, the overcoming of elementarism and associationism in psychology, and the inclusion of the study of unconscious psychic depths into scientific psychology.—*F. C. Sumner* (Howard).

2583. Waugh, F. V., & Dwyer, P. S. Compact computation of the inverse of a matrix. *Ann. math. Statist.*, 1945, 16, 259-271.—*F. Gehlmann* (Chicago).

2584. Winn, R. B. Mind and nature. *Phil. Sci.*, 1946, 13, 41-52.—Four premises are stated: (1) all knowledge is mental; (2) the object of knowledge ("reality") is nonmental; (3) knowledge of "reality" is indirect; and (4) all knowledge is relational. In the light of these postulates, the author then discusses, instead of the traditional mind-body problem, the question of mind and nature. He points out that the word "nature" has two meanings. In one sense we deal with nature as inclusive of minds, and in the other with minds as inclusive of nature in the form of knowledge. Mind acts as a mediating agency between the nature within and the nature without. To speak of physiological impulses initiated by stimuli is not sufficient; for nothing can be perceived unless it is in consciousness. On the other hand, perceptual knowledge involves the projection of the visual sensation to real objects.—*R. H. Dotterer* (Pennsylvania State College).

2585. Xirau, J. Time and its dimensions. (Trans. by W. D. Johnson.) *Phil. phenomenol. Res.*, 1946, 6, 381-399.—Pure temporality conceived of as a linear series does not exist and is an abstraction. The immediate experience of duration is given as a temporal volume. In one and the same temporal pulsation there may occur numerous phenomena of different levels of depth.—*F. Heider* (Smith).

2586. Yerkes, R. M. Psychology in world reconstruction. *J. consult. Psychol.*, 1946, 10, 1-7.—Psychology is potentially the most important of sciences for the improvement of man and of his world order. It has three especially promising and important categories or varieties of effort: fundamental research, methodological development and extension, and practical applications. Psychologists should work for a universal language, for an increasingly adequate scientific foundation for educational world practice, and for the "universalizing" of such value concepts as freedom and service.—*S. G. Dulsky* (Personnel Inst., Chicago).

[See also abstracts 2653, 2818, 2893, 2896, 2913, 2929, 2930, 2943.]

NERVOUS SYSTEM

2587. Akelaitis, A. J. A study of gnosis, praxis and language following section of the corpus callosum and anterior commissure. *J. Neurosurg.*, 1944, 1, 94-102.—The author presents a detailed study of the higher integrative activities of two patients, one with section of the anterior commissure one year

after complete section of the corpus callosum (seizures following abscess in left frontal lobe), the other with simultaneous section of the anterior commissure and anterior half of the corpus callosum (bilateral leucotomy). In neither patient were visual, auditory, tactile, or temporal gnosis, praxis, or language functions impaired on either side. Evidence is presented showing that subcallosal neuron pathways exist and probably play a large role in activities requiring co-ordination of the two hemispheres and in relations between the dominant and the subordinate hemisphere.—*M. E. Morse* (Baltimore, Md.).

2588. *Alpern, D. E.* [Chemical factors in nerve stimulation of the human organism.] Moscow: Medgiz, 1944. Pp. 192. 20 Rs.—*W. S. Hunter* (Brown).

2589. *Aring, C. D., & Engel, G. L.* Hypothalamic attacks with thalamic lesion. II. Anatomic considerations. *Arch. Neurol. Psychiat., Chicago*, 1945, 54, 44-50.—"The histopathologic study of a 17½ year old boy who was for years subject to attacks of hypothalamic dysfunction revealed an old lesion which destroyed the ventral half of the right dorso-medial nucleus of the thalamus. It is thought that analysis of this case lends evidence that this thalamic nucleus transmits corticohypothalamic connections. In the face of a usually symptomless but fixed thalamic lesion, normal hypothalamic regulation was rather easily disturbed by emotional factors or by infections." (See also 20: 2602.)—*K. S. Wagoner* (DePauw).

2590. *Bakker, A.* Über den Verlauf gesonderter Pupillarfaser im Sehnerv. (On the course of severed pupillary fibers in the optic nerve.) *Ophthalmologica*, 1942, 104, 233-242.

2591. *Barnes, T. C.* Somatic factors in electroencephalography. *Amer. J. med. Sci.*, 1945, 210, 132-133.

2592. *Barnes, T. C., & Beutner, R.* Experiments supporting the phase boundary theory of electrical potential in nerve. *Exp. Med. Surg.*, 1945, 3, 325-329.—The lower end of a J-tube containing 4 cc. of triacetin floating on a 0.9% sodium chloride solution was immersed in an aqueous solution (0.1%) of sodium lauryl sulfonate. The 115 mv. positive phase boundary potential produced on the triacetin was reduced to 100 mv. by adding 100 mg. of acetylcholine chloride to the sodium lauryl sulfonate, and to 90 mv. by a second equal addition. Since an oil layer on which acetylcholine is electrically indifferent may be thus sensitized by the positive charge of a lower fatty acid, it is suggested that "substances dissolved in the aqueous phase surrounding the nerve fiber may play a role in the electrical action of cholinergic and adrenergic nerves."—*D. K. Spelt* (Arkansas).

2593. *Beutner, R., & Barnes, T. C.* The origin of electricity in the nervous system. *Biodynamica*, 1945, 5, 117-128.—The ionic permeability theory of the origin of electricity in the nervous system has

never been adequately supported. The theory of phase boundary potentials covers observed facts more adequately, particularly data derived from recent studies utilizing the oil cell method.—*D. K. Spelt* (Arkansas).

2594. *Bishop, G. H.* Nerve and synaptic conduction. *Annu. Rev. Physiol.*, 1946, 8, 355-374.—The literature from September, 1944, to September, 1945, is critically reviewed.—*W. S. Hunter* (Brown).

2595. *Bronk, D. W.* The physical structure and biological action of nerve cells; with some references to the problems of human flight. *Amer. Scientist*, 1946, 34, 55-76.—Nerve cells, as the integrators of the body, have characteristics which must affect the design of instruments and machines for human use. Thus the oxygen demands of nerve cells, especially in the brain, together with other neural factors, have had a profound effect on the development of modern aviation. Several such relationships are analyzed and illustrated. Portrait.—*D. K. Spelt* (Arkansas).

2596. *Bullock, T. H.* Oscillographic studies on the giant nerve fiber system in *Lumbricus*. *Biol. Bull. Woods Hole*, 1944, 87, 159.

2597. *Cabrera Sánchez, B.* Sobre las modificaciones de la excitabilidad modular refleja después de suprimir la conexión con el encéfalo. II. Acción de excitantes cutáneos de diferente naturaleza. (Modificaciones of medullary reflex excitability on suppressing connection with the encephalon. II. Action of various cutaneous stimuli.) *Ciencia, Méx.*, 1945, 5, 254-258.—Virtually the same shaped curve relating response latencies to amount of stimulation was obtained with the use of interrupted current, galvanic current, and hot water, as resulted for acetic acid in previous experiments. With electrical stimulation, about 2 volts were required for response in control frogs, and more in decerebrate frogs. Lapique's differing results were probably due to difference in technique.—*H. D. Spoerl* (Jeffersonville, Vt.).

2598. *Charlin, —, & Passouant, —.* Intérêt de l'électroencéphalographie en milieu militaire. (Interest in electroencephalography in the military field.) *Bull. Soc. Méd. milit. franç.*, 1945, 39, 251-261.

2599. *Cooper, E. R. A.* The development of the human lateral geniculate body. *Brain*, 1945, 68, 222-239.

2600. *Detwiler, S. R.* Midbrain regeneration in *Amblystoma*. *Anat. Rec.*, 1946, 94, 229-237.

2601. *Diethelm, O., & Simons, D. J.* Electroencephalographic changes associated with psychopathic personalities. *Arch. Neurol. Psychiat., Chicago*, 1946, 55, 410-413.—Abstract and discussion.

2602. *Engel, G. L., & Aring, C. D.* Hypothalamic attacks with thalamic lesion. I. Physiologic and psychologic considerations. *Arch. Neurol. Psychiat., Chicago*, 1945, 54, 37-43.—"An 18 year old boy had recurrent attacks of coryza, chills, fever, nausea, vomiting, abdominal cramps, oliguria, fluctuating hypertension, tachycardia and muscle cramps, be-

ginning at the age of 5 months. The patient eventually died during such an attack. The attacks developed during anxiety-provoking situations or in the course of intercurrent infections. The patient also had frequent episodes of breath holding, cyanosis and unconsciousness, followed by somnolence, which began on the third day of life. He also had bronchial asthma and pronounced skeletal, muscular and genital underdevelopment. Postmortem examination revealed a small cystic softening involving portions of the dorso-medial nucleus, the internal medullary lamina and the lateral nucleus of the right thalamus. The hypothalamus was intact. The lesion interrupted partially corticohypothalamic connections and led to distortion and exaggeration of hypothalamic reaction in response to physiogenic and psychogenic stimuli." (See also 20: 2589).—K. S. Wagoner (DePauw).

2603. Engel, G. L., Ferris, E. B., Jr., & Romano, J. Focal electroencephalographic changes during the scotomas of migraine. *Amer. J. med. Sci.*, 1945, 209, 650-657.

2604. Feldberg, W. Present views on the mode of action of acetylcholine in the central nervous system. *Physiol. Rev.*, 1945, 25, 596-642.—All the evidence in favor of acetylcholine as a central transmitter has been obtained by methods previously applied to the peripheral nervous system. There is strong evidence that transmission across a number of synapses in the central pathway of autonomic and motor neurones occurs through the mediation of acetylcholine. However, there is little evidence for such transmission across many other central synapses, and there are facts difficult to reconcile with the theory of acetylcholine as a universal transmitter. The evidence for and against is presented. Acceptance or rejection of the theory depends on the relative value attached to the various findings and the kinds of evidence regarded as decisive. The main danger at present for the theory is not the difficulties opposing it but the attempt to base it on single facts. If, however, we must assume that acetylcholine is not the universal transmitter, then our concept of its role in the central nervous system will be influenced greatly by views concerning transmission across synapses not affected by acetylcholine. Possibly a completely new approach must be found to settle the question. Extensive bibliography.—M. E. Morse (Baltimore, Md.).

2605. Forster, F. M. Action of acetylcholine on motor cortex; correlation of effects of acetylcholine and epilepsy. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 391-394.—Intracisternal injections of acetylcholine in 28 cats resulted in changes in electrical activity of the cortex associated with tonic-clonic convulsions. In accordance with the views of other investigators, it is suggested that the mechanism of convulsive seizures may be directly related to disorders of acetylcholine metabolism. "The electrical discharges of the cortex produced by acetylcholine are similar to seizure discharges. These discharges can be correlated with the motor com-

ponents of seizures. Variations of cortical stimulability, neuronal transmission of discharges, and sensory inhibition have been correlated with acetylcholine discharges and epileptic discharges. Because of these observations and the normal presence of acetylcholine in the cortex, the view is taken that acetylcholine plays an essential role in the physiologic genesis of epilepsy." The present investigation "links the motor seizure manifestations resulting from applications of acetylcholine with the electrical seizure manifestations."—K. S. Wagoner (DePauw).

2606. Hare, K. The visceral functions of the nervous system. *Annu. Rev. Physiol.*, 1946, 8, 375-420.—The literature from April, 1943, to August, 1945, is critically reviewed.—W. S. Hunter (Brown).

2607. Hebb, D. O. Man's frontal lobes. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 10-24.—A study of the psychological, social, and economic adjustments of a patient with bilateral frontal extirpation was made, together with a critical review of other published case reports of removal of the frontal lobe. The author suggests that difficulties in obtaining adequate control data may have led to errors in interpretation of symptoms referred to the frontal lobes. "A review of published case reports of removal of the frontal lobe indicates that no one has as yet shown that defects follow a simple loss of tissue from man's frontal lobes; the loss must, presumably, have some effect, but it is hard to demonstrate and its nature is not yet clear. The implications of the evidence for surgical treatment, particularly of traumatic injury, are that social and intellectual defects need not follow an uncomplicated bilateral excision of tissue from the anterior part of the frontal lobes."—K. S. Wagoner (DePauw).

2608. Hoff, H. E., & Grant, R. S. The super-normal period in the recovery cycle of motoneurons. *J. Neurophysiol.*, 1944, 7, 305-322.—See *Biol. Abstr.* 20: 6569.

2609. Larrabee, M. G., & Hodes, R. The action potential of human nerve and muscle, normally and after nerve injury. *Amer. J. med. Sci.*, 1946, 211, 246-248.

2610. Leão, A. A. P. Pial circulation and spreading depression of activity in the cerebral cortex. *J. Neurophysiol.*, 1944, 7, 391-396.—See *Biol. Abstr.* 20: 6573.

2611. Learmonth, J. R. Personal experience of exploration and re-exploration of injured nerves. *Proc. R. Soc. Med.*, 1944, 37, 553-556.

2612. May, R. M. La formation du système nerveux. (The formation of the nervous system.) Paris: Librairie Gallimard, 1945. Pp. 300. 330 fr.—W. S. Hunter (Brown).

2613. Monnier, M. Topographische Tafeln des Hirnstammes der Katze für experimentalphysiologische Untersuchungen. (Topographical charts of the cat's brain stem for experimental physiological investigations.) *Helv. physiol. pharmacol. Acta*, 1943, 1, 437-449.

2614. Murphy, J. P., & Gellhorn, E. Multiplicity of representation versus punctate localization in the motor cortex; an experimental investigation. *Arch. Neurol. Psychiat., Chicago*, 1945, 54, 256-273.—Experimental observations were made on rabbits, cats, and monkeys toward a further investigation of localization of motor function in the cortex. The view of punctate localization is critically examined. Evidence obtained from suprathreshold electrical stimulation of the cortex, involving primary facilitation, points toward a multiplicity of representation in specific areas rather than a condition of punctate localization and supports the view that the cortical representation is that of movements rather than of particular muscles. The apparent one-to-one relation between cortical locus and particular muscle response is interpreted as partly a function of the intensity of stimulation. It is further suggested that "multiplicity of representation and extent of representation of movements far beyond the bounds delimited by threshold stimulation undoubtedly account for recovery of function of individual parts of the body after the contralateral controlling cortical area has supposedly been removed in entirety."—K. S. Wagoner (DePauw).
2615. Nachmansohn, D. On the energy source of the nerve action potential. *Biol. Bull. Woods Hole*, 1944, 87, 158.
2616. Ogilvie, R. S. *Manual of electroencephalography for technicians*. Cambridge, Mass.: Addison-Wesley, 1945. Pp. xii + 100. \$3.50.—Detailed instructions are given for setting up an EEG laboratory, including shielded rooms, electrical outlets, and other connections. A separate chapter is devoted to making electrodes and to the type of placement and recording (localization) techniques in common use. Another chapter deals with calibrations, artifacts, and trouble shooting, plus suggestions for handling varying types of patients. The section on interpretation stresses the Gibbs classification system, but the 21 samples of record shown also include Jasper's classification. An appendix is devoted to a short review of the fundamentals of electricity, plus a cost analysis of an EEG laboratory.—C. E. Henry (U. S. Naval Reserve).
2617. Ostow, M., & Ostow, M. Bilaterally synchronous paroxysmal slow activity in the encephalograms of non-epileptics. *J. nerv. ment. Dis.*, 1946, 103, 346-358.—In studying the prison population at the Medical Center for Federal Prisoners, it was found that bisynchronous paroxysmal slow electrical discharge was greater among the prison population than in the general population or in post-traumatic epileptics. Imprisoned epileptics showed this type of wave more frequently than non-imprisoned epileptics. The wave was also common in malingering or hysterical epileptics and among habitual homosexual psychopaths, mentally deficient psychopaths, and a group of C.O.'s who refused C.O. status. Hence this type of response is frequent not only with epileptics but with personality traits conducive to antisocial behavior, regardless of whether the hostility is expressed openly or is obscured by various defense mechanisms. It is suggested that the presence of these waves indicates subcortical or metabolic dysfunction. This dysfunction might provoke temporary or more lasting cortical discharges, leading to petit or grand mal seizures, or might merely isolate subcortical structures from cortical control, leading to a psychomotor episode. Medication may reduce the sensitivity of the cortex to this disturbance, reducing the number of seizures while leaving the wave pattern undisturbed.—L. B. Heathers (Univ. Washington).
2618. Ozorio de Almeida, M. *L'inhibition et la facilitation dans le système nerveux central et périphérique*. (Inhibition and facilitation in the central and peripheral nervous system.) Rio de Janeiro: Atlantica Editora, 1944. Pp. 135.—A summary is given of the experimental data on neural inhibition and facilitation up to 1941, and of the major theories in the field. Bibliography of 258 titles.—D. K. Spelt (Arkansas).
2619. Rushton, W. A. H. Reflex conduction in the giant fibres of the earthworm. *Proc. roy. Soc.*, 1946, B133, 109-120.
2620. Ulett, G. Electroencephalogram of dogs with experimental space-occupying intracranial lesions. *Arch. Neurol. Psychiat., Chicago*, 1945, 54, 141-149.—"High voltage slow (delta) waves were seen characteristically in the electroencephalogram of dogs with subcortical, space-occupying lesions. Such changes at their height resembled the electroencephalographic alteration seen in some cases of intracerebral, space-occupying lesions in man. Disappearance of normal rapid activity and flattening of the electroencephalogram were seen with subdural and extradural space-occupying lesions in the dog." The author also concludes that "the electrocorticogram is a more sensitive record of abnormal brain potentials than is the electroencephalogram obtained by leading from the skull in dogs."—K. S. Wagoner (DePauw).
2621. Walker, A. E. The somatic functions of the central nervous system. *Annu. Rev. Physiol.*, 1946, 8, 421-446.—This review covers the literature from July, 1944, to September, 1945.—W. S. Hunter (Brown).
- [See also abstracts 2627, 2713, 2737, 2764, 2778.]

RECEPTIVE AND PERCEPTUAL PROCESSES

2622. Adams, E. L. Hearing and speech rehabilitation: IX. Adjustment of the hard-of-hearing after leaving the service. *Nav. med. Bull. Suppl., Wash.*, 1946, March, 249-252.—R. O. Rouse (Army Air Forces).
2623. Andreev, L. A. [Physiology of sense organs.] Moscow: Izdanie MGY, 1941. Pp. 184. 12 Rs.—Eight chapters are devoted to an exposition of the present state of knowledge of the various senses.—W. S. Hunter (Brown).

2624. [Anon.] War-time research on hearing aids; a release from Harvard and Central Institute. *Volta Rev.*, 1946, 48, 225; 242.—H. R. Myklebust (N. J. School for the Deaf).

2625. Beam, A. D. Rehabilitation of the blinded: I. Traumatic blindness. *Nav. med. Bull. Suppl.*, Wash., 1946, March, 253-262.—R. O. Rouse (Army Air Forces).

2626. Békésy, G. v. Über die Frequenzauflösung in der menschlichen Schnecke. (On the frequency response in the human cochlea.) *Acta oto-laryng.*, Stockh., 1944, 32, 60-84.—A method is described for the measurement of mechanical impedance in small membranes, and results are given for the round window membrane in preserved human material. From observations of the form of deflection of the basilar membrane on slight mechanical displacement with a fine probe, it is concluded that there is no more tension in the transverse than in the longitudinal directions in the apical region, and little more in the basal region; and indeed there seems much doubt that in the resting state (unstimulated by any sound) the membrane is under tension at all. From measurements on a model of the cochlea, an attempt is made to determine the locus of vortex movements aroused by vibrations. It is concluded that the excitant of the cochlea is not the amplitude of motion but something less extensive. English summary.—E. G. Wever (Princeton).

2627. Bender, M. B. Extinction and precipitation of cutaneous sensations. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 1-9.—Cutaneous sensations of patients with gunshot wounds of the brain, spinal cord, nerve roots, or peripheral nerves were studied. Careful observations were made of the temporal and spatial factors in sensation and of the sensory response to double stimulation. "In the cases described, dulling or extinction of cutaneous sensation occurred in an affected area, when this and a normal area, usually the corresponding one on the opposite side of the body, were stimulated simultaneously. When the affected area alone was stimulated, it might be fairly sentient. In other cases, pain was precipitated or spontaneous pain aggravated in a causal limb when the opposite hand or foot or some distant part of the body was stimulated. The cutaneous sensory extinction and the precipitation of pain by stimuli from the opposite side of the body are probably related, one being the positive and the other the negative phase of the same phenomenon. It is hypothesized that both phases of the phenomenon take place in the sensory cortex and that there is a bilateral functional relationship between the sensations of the two sides of the body."—K. S. Wagoner (DePauw).

2628. Beuningen, E. v. Lichtsinn und Sehschärfe eines Normalsichtigen, eines Kurzsichtigen und eines Nachtblinden bei herabgesetzter Beleuchtung. (Vision and visual acuity under dim illumination in normal, nearsighted, and night-blind cases.) *v. Graefes Arch. Ophthalm.*, 1944, 147, 164-171.

2629. Boring, E. G. Perception of objects. *Amer. J. Phys.*, 1946, 14, 99-107.—Perceptual constancy is an integrative property of the brain and is both logical and physiological in nature. Developmentally it is dependent upon both heredity and learning. For descriptive purposes, perceptual sensory data are divided into the core, i.e., the basic sensory excitation (e.g., the retinal image), and the context, i.e., the knowledge of the perceived object as determined by past experience and the other sensory data (e.g., binocular parallax, convergence). Reduction of context yields a perception more like the basic sensory excitation; an increase of context yields a perception more like the real object (Thouless's regression toward the real object). Experimental verification is cited (see 15: 1635). The purpose of perception is economy of thinking. "It picks out and establishes what is permanent and therefore important to the organism for its survival and welfare."—J. K. Bore (Brown).

2630. Burian, H. M., Walsh, R., & Bannon, R. E. Note on the incidence of clinically significant aniseikonia. *Amer. J. Ophthalm.*, 1946, 29, 201-203.—Of 699 individuals tested in Hanover, N. H., for aniseikonia, 166 were given corrections; 116 of these were estimated to have derived benefit from the corrections. This number represented 3.5% of the local community.—D. J. Shaad (Kansas City, Kans.).

2631. Cameron, A. T. The relative sweetness of sucrose, glucose, and fructose. *Trans. roy. Soc. Can.*, 1943, 37, 11-27.

2632. Cowan, A. Ocular imagery. *Arch. Ophthalm.*, Chicago, 1946, 35, 42-44.—Although the theory of collinear imagery is not strictly applicable to the eye, it remains the best way of teaching physiological optics. In the intricate caustic produced by convergence of rays in the eye, that part will be selected which gives the best visual acuity. Whatever part this is, it may be regarded as yielding point imagery if the diameter of point images do not exceed the resolving power of the system. Unlike a camera, the eye focuses only the macular image clearly, thus eliminating confusion from peripheral images. Size of pupil is not an important factor as long as the foveal image is clearly focused. Cowan considers a large, inactive pupil important in subjective refraction, since depth of focus and aberrations are not then affected by the aperture, and the glass which yields the best focus under conditions of the test can be accurately determined.—M. R. Stoll (Amer. Opt. Co.).

2633. Dadourian, H. M. The moon illusion. *Amer. J. Phys.*, 1946, 14, 65-66.—The arguments on which Boring rejects Ptolemy's theory of the moon illusion and develops that of a dependency upon the raising and lowering of the eyes (see 17: 3002) are unconvincing to the author. On the basis of experience in observing the setting sun, which produces an illusion similar to the moon illusion, the following conclusions are drawn: (1) A distant object, whether celestial or terrestrial, appears larger

when its image is accompanied by the images of intervening terrestrial objects, due to the conscious or subconscious comparison of the former with the latter. (2) Any change in apparent size upon raising or lowering of the eyes is dependent upon the fact that objects in the foreground become more or less clearly visible. (3) Ptolemy's theory needs a slight modification, i.e., the appearance of the celestial dome as an oblate spheroid is not the cause of the moon illusion, for the former is also due to the presence or absence of terrestrial objects in the line of sight.—J. K. Bare (Brown).

2634. Detwiler, S. R. On the role of chemical factors in retinal photomechanical responses. *Amer. J. Anat.*, 1945, 77, 117-157.—Detwiler found that frogs' dark-adapted eyes gave a partial light response to various forms of manipulation in the dark. This is provisionally interpreted as due to increased adrenaline secretion resulting from excitation. Dark-adapted frogs injected with epinephrine hydrochloride showed extensive pigment migration following re-dark-adaptation, irrespective of the reaction of the solution. Injections of different substances with similar pH values may have widely different effects on the pigment and cones, and substances of widely different pH values may have similar effects. Excised dark-adapted eyes, maintained in darkness, undergo extensive migration of pigment, whether placed in acid, alkaline, or neutral media. This is interpreted as due to release of an inhibitory influence normally exerted by intactness of the eye with the nervous system. The thesis that pigment migration and cone contraction are brought about by the production of acid resulting from decomposition of cone photosensitive substance by light does not meet all the conditions imposed by the present experiments. Extensive bibliography.—M. E. Morse (Baltimore, Md.).

2635. Dice, L. R. Minimum intensities of illumination under which owls can find dead prey by sight. *Amer. Nat.*, 1945, 79, 385-416.—Four species of owls were tested for their ability to find dead deer mice under conditions of low illumination. The barred, long-eared, and barn owls were found to be able to see and approach their prey directly from a distance of 6 feet or more under an illumination calculated to be as low as 0.000,000,73 foot-candle. When the illumination is reduced to 0.000,000,53 foot-candle, all these owls seem to have difficulty in seeing their prey at distances greater than 1 foot. There is, however, some evidence that sight may be of use to the barred owls at illuminations as low as 0.000,000,15 foot-candle. The barred, long-eared, and barn owls apparently are able to see objects under an illumination of from 1/100 to 1/10 the light intensity required by man. The burrowing owl was unable to find the mice regularly under illuminations dimmer than 0.000,026 foot-candle. Despite the extreme sensitivity of the owl's eyes, it is probable that the illumination in the bird's natural habitat frequently falls below the minimum for adequate vision.—G. A. Kimble (Brown).

2636. Emmes, A. B. Refractive significance of Ortho-rater tests. *Amer. J. Optom.*, 1946, 23, 3-15.—Scores of 100 navy men as determined on the Ortho-rater and by ordinary refractive techniques were compared with respect to acuity and phoria determinations at near and far. Distance acuity ratings at far were generally lower on the Ortho-rater. When adjustment was made for this tendency, about 60% showed reasonable correspondence between the two ratings. Acuity ratings at near showed somewhat better correspondence. Correlation between lateral phoria determinations was found in 80% at distance, 68% at near; 87.1% and 83% "were in reasonable proportion" by the two methods in respect to vertical phoria measurements at far and near, respectively. Raw data are presented, including the approximate subjective correction for each case.—M. R. Stoll (Amer. Opt. Co.).

2637. Emsley, H. H. Some notes on space perception. *Proc. phys. Soc. Lond.*, 1944, 56, 293-304.—The study of space perception has progressed but slowly because of lack of collaboration among psychologists, physicists, and technicians. A size lens (iseikonic lens) of zero power may be used to magnify the retinal image of one eye, and so to produce an apparent tilt in a frontal plane of the visual field. The concept of aniseikonia would seem to require that an inequality of image size be projected upon the cortex. Such an effect has not yet been conclusively demonstrated, and in any case it would not appear to account for distortions of depth commonly found in the median plane, about a horizontal axis.—L. A. Riggs (Brown).

2638. Fleisch, A., & Posternak, J. Héméralopie et vitamine A; enquête pratiquée chez des écoliers lausannois. (Night blindness and vitamin A; a practical investigation among Lausanne school children.) *Helv. physiol. pharmacol. Acta*, 1943, 1, 23-31.

2639. Foght, E. Bemerkungen über das akustische Leiden bei der Ménière'schen Krankheit. (Observations on deafness in Ménière's disease.) *Acta oto-laryng., Stockh.*, 1944, Suppl. 51, 230-240.—The application of Fowler's test, in which loudness balances are made between the affected ear and the other ear, to persons with Ménière's disease gives a result similar to that obtained in "perceptive" deafness and supports the view that the defect is in the cochlea, auditory nerve, or central nerve connections.—E. G. Wever (Princeton).

2640. Fulton, J. F., Hoff, P. M., & Perkins, H. T. A bibliography of visual literature, 1939-1944. Springfield, Ill.: C. C. Thomas, 1945. Pp. x + 117. \$3.00.

2641. Gilmer, G. Visual survey of school children. *Optom. Wkly*, 1946, 37, 520; 522.—A tabulated summary is presented of visual tests of the school population of Calaveras County, Calif. The Keystone Telebinocular and visual efficiency cards were employed in the survey.—D. J. Shaad (Kansas City, Kans.).

2642. Graybiel, A., & Hupp, D. I. The oculo-
gyral illusion; a form of apparent motion which may
be observed following stimulation of the semicircular
canals. *J. Aviat. Med.*, 1946, 17, 3-27.—Illusory
perceptions of motion following rotation were studied
under various conditions. The principal experi-
mental variables were: (1) amount of general environ-
mental illumination, (2) type and illumination of the
fixation object, (3) direction and strength of stimulus,
and (4) position of the subject's head. Much
stronger vestibular stimulation is required to
produce visual illusory effects in a lighted room as
compared with a darkened room. With strong
stimulation in a darkened room, five distinct illusory
effects can be observed during and following rotation.
Autokinesis complicates the oculo-
gyral illusion when a simple fixation target is used. Varying the position
of the subject's head changes the plane of the ap-
parent motion. The administration of hyoscine
hydrobromide produces no significant change in the
illusions. The practical importance of these findings
to problems of flying is discussed.—A. Chapanis
(U. S. Army Air Forces).

2643. Hagerman, F. Aural shot injuries and their
healing. (A contribution to the problem of the
regenerative power in the nerve end apparatus of the
hearing organ.) Preliminary report II. *Acta oto-
laryng.*, Stockh., 1942, 30, 13-25.—From a study of
161 cases of deafness from detonations, evidence is
presented that there is some recovery, which pro-
ceeds slowly over a period of several months after
exposure is ended. How long healing will continue
and what level it will reach remain undetermined.
The healing is rather variable for the tone 8192
cycles and is often least rapid for 4096 cycles.—E. G.
Wever (Princeton).

2644. Hardy, L. H., Rand, G., & Rittler, M. C.
Tests for detection and analysis of color blindness.
II. Comparison of editions of the Ishihara Test.
Arch. Ophthalm., Chicago, 1946, 35, 109-119.—The
5th, 7th and 9th editions of the Ishihara charts are
demonstrated to permit screening of color defectives
in accordance with scoring presented in the first
paper of this series (see 20: 1399), but they do not
provide for classification as to type or degree of color
anomaly. The 10 Ishihara plates of the American
Optical Co. pseudoisochromatic series do not screen
effectively.—M. R. Stoll (Amer. Opt. Co.).

2645. Hathaway, W. Research for the partially
seeing. *J. except. Child.*, 1946, 12, 199-201; 208.—
The author discusses trends in research, reviews
progress which has been made, and suggests research
problems.—H. R. Myklebust (N. J. School for the
Deaf).

2646. Henry, F. M. Altitude pain; a study of
individual differences in susceptibility to bends,
chokes, and related symptoms. *J. Aviat. Med.*,
1946, 17, 28-55.—Intense joint pain (bends),
difficulty in respiration (chokes), and neurologic
symptoms are frequently experienced by aviators
upon ascent to altitudes above 30,000 feet. A total
of 1,412 man-flights were made in a decompression

chamber under a variety of "flight" conditions to
study individual differences in susceptibility to these
symptoms. The results show that there are con-
sistent differences among individuals in their sus-
ceptibility to decompression sickness and that these
differences appear to be best accounted for by a
systemic rather than specific-local theory of sus-
ceptibility. Individual differences in susceptibility
are maintained over a period of several months.
Subjective pain-intensity ratings are shown to be
highly correlated with observable motor impairment
in a particular limb, and these ratings yield the best
measure of susceptibility to decompression sickness.
Bibliography of 38 titles.—A. Chapanis (U. S. Army
Air Forces).

2647. Holmgren, L. Some general and special
remarks on the investigations regarding aural
protections in the army during the autumn of 1941.
Acta oto-laryng., Stockh., 1944, 32, 502-509.—Tests
of three devices for protecting the ear against
injuriously loud sounds showed an isolate plug to be
the most suitable, as it gave protection without
seriously reducing the hearing of speech.—E. G.
Wever (Princeton).

2648. Huizing, H. C. Die Bestimmung der
Regression bei der Gehörprüfung und der physi-
kalische, physiologische und psychologische Zusam-
menhang bei der Gehörprothese. (The determina-
tion of regression [recruitment] in the testing of
hearing, and the physical, physiological, and
psychological relations to hearing aids.) *Acta
otolaryng.*, Stockh., 1942, 30, 487-499.—The selection
of hearing aids is complicated by the phenomenon of
regression in cases of perceptive deafness, for here
the subjective loudness of a sound increases with
intensity more rapidly than in the normal or in
conductive deafness, so that at high levels a sound
may seem as strong as it does to the normal ear. A
simple amplification correction, based on thresholds,
therefore may be intolerable. The problem of the
choice of a hearing aid is further complicated by the
nature of the sound-image complex: the pattern of
speech and other sounds as perceived by the indi-
vidual, and as affected by the incidence of the
acoustic disorder. These complications make it
impracticable for a person to select his own hearing
aid. [Regression is used for what is more often called
recruitment.] English summary.—E. G. Wever
(Princeton).

2649. Irvine, S. R. A simple test for binocular
fixation and ocular dominance. *Air Surg. Bull.*,
1944, 1, No. 6, 6-7.—Need for distinguishing am-
blyopia ex anopsia, malingery, and hysteria led to
the development of this simple prism test. A 4-
diopter prism is placed quickly before one eye in
successive positions—base in, out, up, and down.
The subject with normal binocular vision will see
two targets (a small light) in different relative posi-
tions; if the prism is left in place, the eye behind the
prism will move while the other remains stationary.
In monocular vision, with the prism over the good
eye, a single, moving target will be seen; eyes show

conjugate movement if the prism is left in place. When the prism is placed over an amblyopic eye, diplopia may be elicited in some positions according to the extent of the scotoma. When placed so that the image falls on a non-seeing area, no diplopia nor eye movement will be noted.—*M. R. Stoll* (Amer. Opt. Co.).

2650. Jampolsky, P. *La collaboration de la vue et du sens statique dans les perceptions spatiales*. (Collaboration of the visual and static senses in space perception.) *Année psychol.*, 1945, 41-42, 46-64.—The perception of visual space is not wholly dependent upon vision for its determination. When one experiences an object as localized in space, one has labyrinthine, kinesthetic, and tactile cues in addition to the retinal image. These nonvisual cues alone, however, are shown to be rather ineffective; the individual relies chiefly upon visual experience. The perception of form and movement is treated as similar to space perception and is shown to be oculostatic functions. These conclusions are based on the results of experiments in which subjects tried to localize points in space. Conditions of illumination, orientation of the eyes, and type of stimulus were varied.—*G. A. Kimble* (Brown).

2651. Jobson, T. B. *Audibility of the radio voice*. *Proc. R. Soc. Med.*, 1944, 37, 263-269.

2652. Keighley, G. *Vibration sense and fatigue*. *Milbank mem. Fd Quart.*, 1946, 24, 29-35.—The experiments here reported were performed to test the suggestion that vibration sensibility is diminished by fatigue and to examine Roth's quantitative method (see 18: 78). The inherent error of the method is relatively small. The test was used on 2 groups subjected to widely different degrees of stress: (1) laboratory technicians and secretaries at the beginning and end of the day's work and (2) men who had been without sleep for 4 successive days. Neither group showed changes in vibration thresholds and there was no relation to the feeling of fatigue or of stress due to sleeplessness.—*M. E. Morse* (Baltimore, Md.).

2653. Keighley, G. *An instrument for measurement of vibration sensation in man*. *Milbank mem. Fd Quart.*, 1946, 24, 36-48.—Keighley describes an electrically driven vibrator with amplitude and frequency independently controlled and thresholds expressed as amplitudes of the applied vibration over a range of frequencies. He believes that it gives better quantitative results than Roth's method (see 18: 78). It was used on the toes of over 400 subjects. The thresholds varied with the temperature of the feet and rose with increasing age.—*M. E. Morse* (Baltimore, Md.).

2654. Kugler, M. E. *Rehabilitation of the blinded: IV. Re-education of the newly blinded*. *Nav. med. Bull. Suppl., Wash.*, 1946, March, 279-294.—*R. O. Rouse* (Army Air Forces).

2655. Lederer, F. L. *Hearing and speech rehabilitation: I. The history and development of the*

program. *Nav. med. Bull. Suppl., Wash.*, 1946, March, 183-190.—*R. O. Rouse* (Army Air Forces).

2656. Lederer, F. L. *Hearing and speech rehabilitation: III. Hearing loss in the Navy and Marine Corps; incidence, etiology, and statistical analysis*. *Nav. med. Bull. Suppl., Wash.*, 1946, March, 194-201.—Data are presented in tabular form showing the incidence of causes and types of deafness among 2,500 cases of bilateral hearing loss exceeding 30 db. in the better ear in the Navy rehabilitation program; 985 had some ear pathosis prior to entry into the service. The amount or cause of aggravation is not presented in detail. The 1,515 cases of deafness incurred in the service are analyzed according to cause. Of these, 664 lost their hearing because of heavy gunfire. A study of 200 cases revealed a relationship between nerve involvement in general and loss of hearing due to heavy gunfire. Situational deafness, which occurs when an individual's hearing loss improves, but he does not admit it because of fear of censure or of accusations of malingering, is discussed.—*R. O. Rouse* (Army Air Forces).

2657. Mann, I., & Sharpley, F. W. *The normal visual (rod) field of the dark-adapted eye*. *J. Physiol.*, 1946, 104, 384-391.—Forty-seven adult subjects with normal vision were studied by means of the Lister perimeter and a faint radium target below cone threshold. By repeated tests the rod visual field of the completely dark-adapted eye was mapped within 90-degree limits from the fixation point. Results indicate that while the shape of the field might vary from test to test, the size as expressed in terms of mean angular radius was fairly constant for each subject. The average values of the mean angular radius of the plotted fields for different age groups are given.—*L. A. Pennington* (Illinois).

2658. Nasiell, V. *Principles concerning the prophylaxis of aural injuries in the services*. *Acta otolaryng., Stockh.*, 1944, 32, 509-526.—Military limitations of protection of the ear against loud sounds are discussed, with particular consideration of the merits and faults of a hood or helmet device.—*E. G. Wever* (Princeton).

2659. Ojala, L. *Ein Beitrag zur Kenntnis der kongenitalen Taubheit beim Albinismus*. (A contribution to our understanding of congenital deafness in the albino.) *Acta otolaryng., Stockh.*, 1943, 31, 127-151.—A histological examination of the ears of a deaf albino cat gave a picture like that previously reported for such animals: a well-developed osseous labyrinth, but with grave pathological changes in the cochlea. In some details the observations differ from earlier cases, as in the slight atrophy of ganglion cells. A consideration is given of the possible role of pigmentation on cochlear development. English summary and 28-item bibliography.—*E. G. Wever* (Princeton).

2660. Piéron, H. *Aux sources de la connaissance: la sensation guide de vie*. (Origins of knowledge: sensation, the determiner of life.) Paris: Gallimard,

1945. Pp. 420. 320 fr.—Piéron offers a detailed critical survey of sensory psychology under the following main headings: stimulus and sensation, the mechanism of excitation, and the bases of qualitative and quantitative aspects of sensation.—*W. S. Hunter* (Brown).

2661. Piéron, H. *Loi d'Abney et théorie de la vision chromatique.* (Abney's law and the theory of color vision.) *Année psychol.*, 1945, 41-42, 125-135.—The principle of integral additivity propounded by Abney for the effects of the mixture of monochromatic lights contrasts directly with the well-known fact that a mixture of complementaries results in an achromatic experience. This apparent contradiction is one which must be reconciled by any adequate theory of color vision. Two types of experiment are reported in which a subthreshold light of a fixed hue, presented either simultaneously with or before a second dim light, is shown to lower the intensity threshold for the second light. In every case, the added light is shown to lower most the thresholds of lights near its own wave length. The effect, however, covers virtually the whole range of the visible spectrum. On the basis of these facts and other experimental results, the author is led to suggest that, in addition to the triad of rather specifically tuned cones postulated by modern color theory, there must also exist in the retina cones which respond to a wide range of wave lengths. This latter type of cone serves in the perception of brightness, the other three cones being receptors for hue. It is postulated that the hue receptors are so innervated that equal excitation of all of them results in reciprocal inhibition, leaving only the brightness receptor to operate.—*G. A. Kimble* (Brown).

2662. Piéron, H. *Quelques données sur la récupération post-adaptative de la sensibilité chromatique.* (Some observations on the postadaptive recovery of color sensitivity.) *Année psychol.*, 1945, 41-42, 148-167.—The recovery curves for chromatic experience were determined by measuring the intensity of a red light necessary to neutralize a greenish-blue light at various periods after adaptation to the red light. In general, it is found that the intensity of the red light required to neutralize the greenish-blue light decreases as a function of the time after the adaptation period. The shape of the curve of recovery seems to be a function of the intensity and saturation of the light originally adapted to as well as of the duration of the adaptive period. The course of recovery is shown to vary slightly for different hues. It is also noted that recovery is more rapid under achromatic lighting than in darkness. These facts are interpreted in terms of a three-color theory of chromatic vision.—*G. A. Kimble* (Brown).

2663. Pinson, E. A., Romejko, W. J., & Chapanis, A. *Flying sun glasses with rose smoked lens.* *Air Surg. Bull.*, 1945, 2, No. 5, 141.—The standardized rose-smoke lens is dark yellow-red with an over-all transmission of 15% but a negligible transmission of ultraviolet and infrared. It affords better protection from glare than the light green lens of 50% over-all transmission and better visibility than a dark green lens of the same (15%) transmission. This density provides adequate protection from glare, while leaving acuity substantially unimpaired, and facilitates adaptation when donning or removing glasses. Plastic lenses and lenses of graded density are also being considered.—*M. R. Stoll* (Amer. Opt. Co.).

2664. Pisetsky, J. E. *The phenomenon of the phantom limb.* *U. S. Veterans' Bur. med. Bull.*, 1944, 20, 320-323.

2665. Rowland, W. M., & Mandelbaum, J. *Testing night vision.* *Air Surg. Bull.*, 1944, 1, No. 8, 14-15.—Differences in ability to see at night may depend on innate differences in sensitivity, experience and training, or adequacy of diet. Special tests are required to detect night blindness. The Eastman Night Vision Tester provides for testing six to twelve men simultaneously. After 30 minutes of dark adaptation, a Landolt ring is briefly exposed in five positions at each of eight brightness levels. The Portable Night Vision Tester is an individual near test also using the broken circle test object. The Hecht-Shlaer Adaptometer provides for determination of either form or light threshold. A fixation control is provided. The test object is an airplane silhouette. All three instruments detect any dangerous degree of night blindness, and all classify most subjects as satisfactory with a few being rated as superior or as unsatisfactory.—*M. R. Stoll* (Amer. Opt. Co.).

2666. Schubert, G. *Augenbewegungen und optische Lokalisation.* (Eye movement and optical localization.) *Ergebn. Physiol.*, 1944, 45, 423-463.

2667. Schürmann, F. *Funktionelle Prüfung am Basler Drehmausstamm.* (Functional tests on the Basel strain of dancing mouse.) *Acta oto-laryng., Stockh.*, 1944, 32, 221-231.—Both auditory and rotational tests show sensitivity that is but slightly below the normal.—*E. G. Wever* (Princeton).

2668. Seidentopf, H., Meyer, E. J., & Wempe, J. Z. [New measurements on the sensitivity of vision.] *Z. InstrumKde*, 1941, 61, 373-380.

2669. Siirala, U. *Über die Gehörsverbesserung mit Hörapparaten.* (On the improvement of hearing with hearing aids.) *Acta oto-laryng., Stockh.*, 1945, 33, 127-146.—A hearing aid is of service only if the person is capable without it of distinguishing loud speech. Its value depends also upon the form of auditory defect; it is of little use in old-age deafness where the high tones are lost altogether. English summary.—*E. G. Wever* (Princeton).

2670. Sinclair, J. G. *The optic lens; an age change.* *Proc. Tex. Acad. Sci.*, 1945, 28, 93.—Abstract.

2671. Sloan, L. L. *Deficient color perception; new tests.* *Air Surg. Bull.*, 1945, 2, No. 6, 166-168.—Required color discrimination may be between lights differing markedly in dominant wave length but of low visibility or between colors of low purity

but of fairly high brightness and large area. The former problem appears to be more difficult for the color deficient, and the Color Threshold Tester was devised to measure ability to distinguish colored lights. Eight different colors were used: 2 reds, 2 greens, 2 yellows, 1 blue, and 1 white. Filters were chosen to provide colors close to the limiting standards for aviation colors and to include those of particular difficulty for the color deficient. Colors are exposed at 8 levels of intensity, chosen so that the colors will be of about equal difficulty for normal subjects at each level. Scoring provides for acceptance of certain normal confusions but no credit for a correct designation when a mistake has been made in the same color at a higher intensity level. Practical tests indicated that critical scores could be established for 4 grades of color recognition representing ability to handle different tasks involving color discriminations.—*M. R. Stoll* (Amer. Opt. Co.).

2672. Stiles, W. S. Current problems of visual research. *Proc. phys. Soc. Lond.*, 1944, 56, 329-356.—Some modern investigations in the field of retinal sensitivity are reviewed. Quantum fluctuations in the stimulus have been shown (Hecht, Schlaer, and Pirenne) to account for changes in the instantaneous value of retinal sensitivity. Similar considerations have been used (Pirenne) to account for binocular summation at threshold for dark-adapted eyes. A method due to Helmholtz has been applied (Walters and Wright) to the study of differential sensitivities of rod and cone receptors, in very small parafoveal regions of the retina, to lights of various wave lengths. The process of recovery following light adaptation has been studied by a method of subjective binocular matching of brightnesses (Schouten) and by measurements of threshold following various durations and brightnesses of light exposure (Crawford). New work on color response curves has also appeared (Wright; Pitt; Walters; Granit).—*L. A. Riggs* (Brown).

2673. Terstenjak, A. Ricerche sulla costanza e il contrasto dei colori. (Research on color constancy and color contrast.) *Arch. Psicol. Neurol. Psichiat.*, 1945, 6, 111-145.—Contrast of colors and constancy of colors are two antagonistic processes. In the former, there is a tendency for all rays of the same brightness to become undifferentiated in the simple optical stimulus. In the latter, there is a tendency to differentiate the brightness from the color itself. Mixing and differentiation should therefore be considered as primary antagonistic functions of color vision. However, in real experience the two processes can hardly be isolated. From the theoretical point of view the factor which is physiologically conditioned is the basis of color contrast, whereas the factor which has a mainly psychological origin is the more important condition in color constancy.—*R. Calabresi* (Hunter).

2674. Thompson, E. A. Hearing and speech rehabilitation: VI. Testing of hearing and fitting of hearing aids. *Nav. med. Bull. Suppl.*, Wash., 1946, March, 216-225.—*R. O. Rouse* (Army Air Forces).

2675. van den Borg, R. E. An investigation about the pressure in the tympanic cavity in school-children and the consequences of an abnormal pressure for hearing. *Acta oto-laryng.*, Stockh., 1942, 30, 500-511.—The whispering voice is hardly any better than the watch tick in the testing of hearing, and the audiometer, in connection with a new instrument, the pneumophone, is recommended. The pneumophone is a device for controlling the air pressure in the external auditory canal during the tests.—*E. G. Wever* (Princeton).

2676. Wever, E. G. Audition. *Annu. Rev. Physiol.*, 1946, 8, 447-450.—Recent publications on audiometry, deafness, and aural rehabilitation are critically reviewed.—*W. S. Hunter* (Brown).

2677. Wolpaw, B. J. Human factors in the visual examination of aviators. *J. Aviat. Med.*, 1946, 17, 100-103.—Since the visual examination is the most extensive portion of the flight physical examination, the author makes a plea for the continuance of the trained aviation medical examiner. Ordinary physicians are not qualified to conduct these tests because they do not know enough ophthalmology and are not aware of the sources of error and human factors which should be considered in evaluating the results of these tests. Some of the sources of error and human factors are: fatigue on the part of the examinee, the use of miotics by the examinee to increase his visual acuity, the use of old or improperly illuminated visual acuity charts by the examiner, and faulty procedures in administering the Howard-Dolman test of depth perception.—*A. Chapanis* (U. S. Army Air Forces).

2678. Yates, A. L. Sudden deafness. *Canad. med. Ass. J.*, 1944, 51, 240-245.

[See also abstracts 2568, 2587, 2590, 2689, 2696, 2700, 2731, 2755, 2851, 2853, 2862, 2863, 2872, 2895, 2897, 2907, 2909.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

2679. Adamczyk, J. The significance of problem-solving behavior. *Etc. Rev. gen. Semant.*, 1945, 2, 214-220.—There are no two persons who are exactly alike or who view things in the same way. The way any individual solves his daily problems constitutes his 'intelligent' behavior, although it might not seem 'intelligent' to others. We overvalue 'talking' and underestimate the subverbal character of problem solving. The psychotherapist and educator rely too heavily on verbal and ready-made answers which are superimposed on the person. An educator has the difficult task of creating an educational method which provides "ample opportunities for the development of problem-solving behavior in relation to pertinent social frames of reference."—*H. R. Myklebust* (New Jersey School for the Deaf).

2680. Bussmann, E. Strukturwandel des Denkens zu Beginn des Jugendalters. (Structural change

in thinking at the beginning of adolescence.) *Schweis. Z. Psychol.*, 1945, 4, 157-158.—Abstract.

2681. Flik, G. *Psychische Vorgänge beim Funken.* (Psychic processes and telegraphy.) *Z. Psychol.*, 1941, 150, 320-383; 1942, 151, 193-229.—The transmission of Morse code is frequently distorted according to certain definite laws of form. These tendencies depend principally upon the temporal form of the complex signs of which the code is composed. There are pointed out some examples: exaggeration of differences in duration, differentiation of pauses, secondary articulations within the letters, and development of rhythmic patterns. The individual's attitude is also a factor—analytic (attending particularly to partial movements, which tends to occur with difficult letters) or synthetic (a more natural and relaxed response). The interpretation of auditory stimulation, such as occurs with the reception of Morse code, depends upon a process of organization involving such dimensions as duration, loudness, pitch, and verbal translation. In relating performance to personality types, it is essential to consider errors in terms of the whole pattern.—(Courtesy *Année psychol.*).

2682. Goddard, H. H. A suggested definition of intelligence. *Amer. J. ment. Def.*, 1945, 50, 245-250.—After some discussion, the author proposes the following definition of intelligence: "Intelligence is the degree of availability of one's experiences for the solution of his present problems and the anticipation of future ones."—C. N. Cofer (George Washington).

2683. Hebb, D. O., & Williams, K. A method of rating animal intelligence. *J. gen. Psychol.*, 1946, 34, 59-65.—The authors describe a method that minimizes variations of motivation, that bases its quantitative score on a large number of qualitative analyses of performance, and is economical of time. It employs the use of a constant setting for the problems, and a constant goal to which the animal is first accustomed. It approximates a human intelligence test, most comparable to a performance test, such as the Porteus Maze, which uses a number of tasks of the same kind varying only in difficulty. Apparatus used was a short elevated T-maze of variable patterns between fixed starting and feeding points. A number of different patterns are described and illustrated by diagrams. Cortically operated animals made lower scores than normals. There is an indication, not statistically significant, that 1½-month-old rats make lower scores than 2½-month-olds, and 2-month-olds lower than 3-month-olds.—A. Katcher (Michigan).

2684. Herbert, M. J. An improved technique for studying the conditioned squeak reaction in hooded rats. *J. gen. Psychol.*, 1946, 34, 67-77.—The author has adapted a conditioning technique devised by Cowles and Pennington to study learning through massed and distributed reinforcement in albino, brown, and black-hooded rats. The holder which he designed required less labor and time for installing the animal, and the rat needs no previous training in the apparatus. The recording device shows (1)

occurrence of the conditioned reaction, (2) the unconditioned reaction, and (3) their latencies, duration, and amplitude. Results indicate that the albinos were inferior to the others in rate of learning, although they showed a relatively higher percentage of varied responses other than a squeak. None of the animals which had learned by the distributed method met the extinction criterion with distributed extinction trials. One half the animals which had learned through massed reinforcement extinguished by distributed trials. All others extinguished readily by massed trials.—A. Lambie (Michigan).

2685. Heron, W. T., Oxman, L. I., & Singley, E. Conditioning or apprehension in rat learning. *J. comp. Psychol.*, 1946, 39, 1-4.—Rats learned to go forward in a maze, and on returning they found a previously closed door open which permitted them to make a right-hand turn and find food. When on the test trials they found at this place on the forward run a door open on both sides, 13 out of 23 rats turned into the right pathway where they had never been before, 3 turned left, and 7 ran on as in the training series. "The results of this experiment indicate that an analysis of this problem in terms of stimulus and response relationships is more profitable than to use such vague phrases as the apprehension of visual relationships or that the rat must recognize in terms of space where he is in the maze."—K. F. Muensinger (Colorado).

2686. Lashley, K. S., & Wade, M. The Pavlovian theory of generalization. *Psychol. Rev.*, 1946, 53, 72-87.—After presenting the basic postulates of the neo-Pavlovian system, experimental tests of irradiation are cited and shown to be incompatible with the theory of irradiation of the effects of conditioning. Possible objections to the experimental tests are evaluated. After discussing stimulus generalization as failure of association, stimulus generalization and stimulus equivalence, the gradient as a function of discriminative threshold, concentration and discrimination, the authors present the conditions for the development of generalization. "The neo-Pavlovian system of explanatory principles is built upon two fundamental postulates: (1) that in primary conditioning all stimuli which act during excitation of an unconditioned reaction tend to be associated with that reaction; (2) that effects of training with one stimulus irradiate to produce association with similar stimuli, with a strength of association proportional to the degree of similarity. Explanations of stimulus equivalence, of generalization, of 'afferent neural interaction,' and of perceptual organization or 'patterning' are based upon these two postulates. Both postulates are contrary to fact." Bibliography of 25 titles.—M. A. Tinker (Minnesota).

2687. Marcuse, F. L., & Moore, A. U. Motor criteria of discrimination. *J. comp. Psychol.*, 1946, 39, 25-27.—The purpose of this experiment on tone discrimination of pigs was to show that results will be inexact if the complexity of the conditioned response is not taken into account. There occurred during the positive stimulus a sudden diminution of

the animal's usually restless behavior long before the lid-raising criterion was reached. The authors suggest that "in order to assay as nearly as possible the real progress of an animal's discriminative ability, a multiple response criteria should be used."—K. F. Muenzinger (Colorado).

2688. Mowrer, O. H., & Lamoreaux, R. R. Fear as an intervening variable in avoidance conditioning. *J. comp. Psychol.*, 1946, 39, 29-50.—In this factorially designed experiment, rats learned to make a conditioned response to a conditioned stimulus of changing the pattern of lighting which was radically different from the unconditioned response to electric shock. Since traditional associationism cannot easily account for these results, the authors offer the alternative hypothesis that the conditioned stimulus aroused the secondary drive of fear which under the conditions of the experiment could be eliminated only by a response totally different from the response which terminated the shock. In a control group where rats learned to make the same response to both the conditioned and unconditioned stimuli, conditioning was more rapid, however, than in the first group. 29-item bibliography.—K. F. Muenzinger (Colorado).

2689. Ribot, T. A. The psychology of attention. Hollywood, Calif.: Marcel Rodd, 1946. Pp. v + 78. \$2.50.—A preface by Margaret D. Corbett in this reprinting of the English translation of 1890 points out the similarity between Ribot's analysis of attention and Dr. W. A. Bates' analysis of vision in the latter's book, *Perfect Eyesight without Glasses*.—L. A. Riggs (Brown).

2690. Zable, M., & Harlow, H. F. The performance of rhesus monkeys on series of object-quality and positional discriminations and discrimination reversals. *J. comp. Psychol.*, 1946, 39, 13-23.—Three rhesus monkeys were tested on a series of 240 problems involving discriminations between two objects, discriminations between two positions, and the reversal of previously established discriminations of either type. The results show that monkeys can shift rapidly "from different kinds of discrimination problems even though there is no externally observable clue to indicate the nature of the problem or the fact that the problem has changed. Such data suggest that monkeys may rapidly form, change, and find new hypotheses as defined by Krechevsky."—K. F. Muenzinger (Colorado).

2691. Zunini, G. Contributi allo studio dell'apprendimento nei pesci. VI. "Esperimenti del giro" con pesci scerebrati. (Contributions to the study of learning in fish. VI. Giro experiments with decerebrated fish.) *Arch. Psicol. Neurol. Psychiat.*, 1941, 2, 169-210.—The giro experiment is useful for testing the animal's capacity to adapt to changed conditions. Observations were made of the behavior of decerebrated fish in a simple turning experiment which required them to reach food placed behind a transparent partition. As some of the decerebrated fish were able to solve the problem, the author concludes that the lack of the cerebral hemispheres,

though augmenting the difficulty of the problem, does not prohibit its solution. However, fish which were trained in the gyro experiment and then were decerebrated lost the habit and were obliged to relearn it. Thus the author believes that, though the cerebral hemispheres are concerned in the learning process, the task can be taken over by other parts of the brain when the hemispheres are lacking.—M. Stuparich (Rome).

[See also abstracts 2568, 2696, 2699, 2701, 2703, 2704, 2747, 2773, 2788, 2826, 2850, 2916, 2917, 2918, 2947, 2949, 2951, 2952, 2956.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

2692. Bean, J. W., & Siegfried, E. C. Transient and permanent after-effects of exposure to oxygen at high pressure. *Amer. J. Physiol.*, 1945, 143, 656-665.—W. D. Neff (Chicago).

2693. Brower, D. Respiration and blood pressure in sensory motor conflict. *J. gen. Psychol.*, 1946, 34, 47-58.—Eighteen adult male students were forced to mirror-trace (1) with dominant hand using mirror vision and (2) with nondominant hand while blindfolded, during which time respiratory amplitude and blood pressure measurements were made. Control measurements were made before and after these two conflict situations. Time and error scores and recovery indices on the tracing are related to various physiological indices. Jenkin's concept of an emotive-orientive breakdown limen is discussed: the circulatory measures reflect emotive changes in conflict, while those of respiration reflect orientive change.—H. Guetschow (Michigan).

2694. Bull, N. Attitudes: conscious and unconscious. *J. nerv. ment. Dis.*, 1946, 103, 337-345.—All action requires some postural adjustment, the establishment of a motor attitude. Feelings of emotion arise when there is a delay between the building up of the motor attitude and its expression in motor action. When these uncompleted motor attitudes are recognized by the subject, they become mental attitudes, or feelings of intention. The motor attitude adopted depends somewhat on the subject's predispositions, the antecedent organization of the nervous system; these antecedents are called latent attitudes. Freud's concepts regarding consciousness may be understood in the above terms: latent attitudes always remain unconscious; unrecognized motor attitudes may be brought into consciousness to become mental attitudes. Analysis attempts to make the person aware of motor attitudes and to activate the expression of latent attitudes which, in turn, might then be brought into consciousness.—L. B. Heathers (Univ. Washington).

2695. Carmichael, L. The onset and early development of behavior. In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 43-166.—This chapter is written to review present information available to answer the two questions:

"When does behavior begin? How does behavior develop during the early weeks and months of life?" Approximately 50 pages are devoted to infrahuman development and over 100 to human prenatal development. Findings are systematically reviewed with reference to persistent problems of theory (individuation vs. integration; recapitulation; continuity of development, etc.) so that both facts and their evaluation are presented. 14-page bibliography.—*L. J. Stone (Vassar)*.

2696. Cruikshank, R. M. *Animal infancy*. In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 167-189.—Major sections in this chapter deal with the behavior of the newborn animal, motor development, sensory development, learning and memory, emotional behavior, and social behavior. The studies reviewed deal almost exclusively with young mammals. "Probably most adequately treated up to now is the development of motor responses in young animals." Bibliography of about 5 pages.—*L. J. Stone (Vassar)*.

2697. Diethelm, O., Doty, E. J., & Milhorat, A. T. *Emotions and adrenergic and cholinergic changes in the blood*. *Arch. Neurol. Psychiat., Chicago*, 1945, 54, 110-115.—An investigation was made "on patients suffering from various psychopathologic reactions in which different emotions of varying intensity were demonstrable, and on members of the staff and medical students" concerning the possible relationship between specific emotional reactions and substances in the blood having adrenergic and cholinergic properties. "The experiments presented here demonstrate that during some specific emotions the blood contains factors that can produce effects on the isolated duodenum of the rabbit similar to those of epinephrine and acetylcholine," and further that "anxiety, resentment and anger are accompanied with definite adrenergic factors; tension, and possibly fear, with cholinergic factors. The blood of one patient in a depressed state with no other emotions detectable had an entirely negative effect during one observation. In other studies of depressed states and in all observations on elated states, anxiety, tension or fear was present, with corresponding adrenergic and cholinergic effects."—*K. S. Wagoner (DePauw)*.

2698. Gans, M. *Sleep and third circulation; an attempt to solve the problem of sleep*. *J. nerv. ment. Dis.*, 1946, 103, 473-483.—*L. B. Heathers (Univ. Washington)*.

2699. Gaskill, H. V., & Fritz, M. F. *Basal metabolism and the college freshman psychological test*. *J. gen. Psychol.*, 1946, 38, 29-45.—Basal metabolic rates of 613 college students, men and women, are correlated with decile ratings on the College Aptitude Test (Iowa State College) and the ACE Psychological Examination. Variations in basal metabolic rates expressed in three ways (BMR's, area of body surface in square meters, and heat production in calories per square meter per hour) are found to bear no significant relation to intelligence. The authors state that many contradictions exist in the literature

on the relationship of basal metabolism to intelligence. From the present study the authors conclude that, at the college level, basal metabolism is not related to the standing on a freshman psychological test. Scattergrams of the results are given.—*P. Alden (Michigan)*.

2700. Gemmill, C. L. *Aviation physiology*. *Annu. Rev. Physiol.*, 1946, 8, 499-514.—Among the topics treated in this critical review of the literature from June, 1944, to June, 1945, are the following: eye functions, altitude tolerance, and acceleration.—*W. S. Hunter (Brown)*.

2701. Hebb, D. O. *Emotion in man and animal: an analysis of the intuitive processes of recognition*. *Psychol. Rev.*, 1946, 53, 88-106.—After questioning the practice of avoiding anthropomorphic terminology in writing on animal behavior, the author proposes to analyze the way in which human beings recognize chimpanzee emotions, to demonstrate that the recognition of human emotions is on a similar basis, and to show that references to emotion and attitudes, whatever they may seem to imply about conscious entities that may not exist, have value as summary descriptions and predictions of behavior. The discussion is based upon accumulated diary records of chimpanzees, descriptions of individual animals, and records of behavior. It is concluded that "recognition of a full, characteristic expression of emotion is the classification of a deviation of behavior from an habitual base line. . . . The recognition of emotion otherwise is a discrimination of a state of changed responsiveness detected from 'associated signs.' . . ." These emotions are inferred special states. There is no fundamental difference in recognition of emotion in man and animals. The "ultimate criteria of the various emotions are found in distinctions of overt behavior." The failure "to obtain a reliable recognition of emotions in the laboratory experiments of the last thirty years was the result of a particular experimental procedure." 21 references.—*M. A. Tinker (Minnesota)*.

2702. Hediger, H. *Wildtiere in Gefangenschaft. Ein Grundriss der Tiergartenbiologie*. (Wild animals in captivity; manual of zoological garden biology.) Basel: Benno Schwabe, 1942.

2703. Krushinskii, L. V. *Nasledstvennoe "fiksirovanie" individual'no priobretennogo povedeniia zhivotnykh i proiskhozhdenie instinktov*. (Hereditary "fixation" of individually acquired behavior of animals and the origin of instincts.) *J. gen. Biol., Moscow*, 1944, 5, 261-283.—Although certain reactions in dogs have a definite hereditary determination, it is shown that the extent to which such behavior appears depends upon environmental circumstances. For example, the activity of carrying objects is shown to have a large hereditary component. In some strains of dogs, this behavior appears either spontaneously or with very little training; other strains acquire the behavior only with difficulty. Similarly, passive defense reactions appear

with great frequency in some breeds and almost never in others. The importance of environmental factors is shown by the observation that passive defense behavior appears frequently in dogs raised in isolation, while animals of similar stock show little of this behavior when raised under nonisolated conditions. Strains which show the greatest amount of passive defense behavior when raised in isolation also show it to the greatest extent when raised under the more natural conditions. These facts are taken to indicate that the appearance of inherited (instinctual) behavior depends upon the presence of the proper environmental circumstances. English summary.—G. A. Kimble (Brown).

2704. Lenz, F. Zur Problematik der psychologischen Erbforschung und der Lehre vom Schichtenbau der Seele. (Problems in psychological investigations of heredity and in the theory of mental levels.) *Arch. Rass.-u. GesBiol.*, 1944, 37, 6-21.

2705. Lhermitte, J., & Hecaen, H. Sur les troubles de la psycho-motilité chez le vieillard. (Concerning disturbances of psychomotility in the aged.) *Ann. méd.-psychol.*, 1942, 100, 62-70.

2706. Löwenbach, H., & Morgan, J. E. The human skin as a conductor of 60-cycle alternating current of high intensity, studied on "electroshock" patients. *J. Lab. clin. Med.*, 1943, 28, 1195-1198.

2707. McGraw, M. B. Maturation of behavior. In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 332-369.—Seven pages are devoted to review of definitions and limitations of the concept of maturation and 13 to a review of methods developed for its study. A brief section on the known information of neural maturation of the human infant is followed by a presentation of certain aspects of infant behavior development. It is observed that "the 'maturation-versus-learning' dichotomy is a cumbersome conceptual framework. . . . Once the laws of development have been determined the maturation concept may fade into insignificance." 5-page bibliography.—L. J. Stone (Vassar).

2708. Negovski, V. A. Agonal states and clinical death: problems in revival of organisms. *Amer. Rev. Soviet Med.*, 1946, 3, 339-355.—This paper is the summary chapter from an unpublished book on the pathologic physiology of dying and of restoration after the onset of clinical death. Topics reviewed include blood circulation, respiration, certain phases of gaseous and intermediary exchange, action currents of the cortex, resistance of the central nervous system to effects of blood loss, and resuscitation of exsanguinated animals and newborn infants dying of asphyxia. With regard to the central nervous system it is shown that: (1) those areas without which life is impossible cannot survive anemia for a period exceeding 5-6 minutes; (2) cortical action currents are the earliest symptom of clinical death and precede the disappearance of eye reflexes; (3) while dying, the phylogenetically older structures are more stable and recover their function

earlier during revival than those areas which phylogenetically are more recent. As a rule, any function of the body which makes its appearance early in onto- or phylogenesis will resist death longer and revive earlier.—L. C. Mead (Special Devices Division, ORI).

2709. Porot, A. Le cannabisme; haschich, kif, chira, marihuana. (Cannabism; hashish, kif, chira, marihuana.) *Ann. méd.-psychol.*, 1942, 100, 1-24.

2710. Rådmark, K. Vertigo from an otoneurological point of view. *Acta oto-laryng., Stockh.*, 1944, 32, 430-436.—Vertigo is classified according to possible origin and its symptomatic manifestations.—E. G. Wever (Princeton).

2711. Reed, C. A., & Reed, R. The copulatory behavior of the golden hamster. *J. comp. Psychol.*, 1946, 39, 7-12.—A detailed description is given of the copulatory behavior of hamsters, with some notes on the length of the gestation period and on breeding and rearing.—K. F. Muensinger (Colorado).

2712. Renner, H. D. The origin of food habits. London: Faber & Faber, 1944. Pp. 261. 15s.—In Part I, Psychology versus Dietetics, are described the various sensory processes connected with eating: taste, smell, tactile, and temperature sensations from food, and its resistance to chewing and swallowing. The individual associations of various foods are discussed, together with the Freudian symbolism of food habits and preferences. Attitudes towards different menus and towards alcohol, spices, salt, sweet and bitter foods, fish, meat, and bread are outlined. Parts II and III deal with the growing, storage, preservation, manufacture, and cooking of food. In Part IV, Sociological and Historical Factors, the author returns to the sociological and historical basis of food habits, attitudes, and taboos.—M. D. Vernon (Cambridge).

2713. Scobee, R. G., & Green, E. L. A center for ocular divergence. Does it exist? *Amer. J. Ophthalm.*, 1946, 29, 422-433.—Phylogenetic, physiologic, and pathologic evidence for a divergence center is reviewed. Since clinical evidence appears to substantiate the theory of passive divergence due to elasticity of the orbital structure, most phenomena associated with divergence can be adequately explained on the basis of a single vergence center in the brain (a convergence center). 45-item bibliography.—D. J. Shaad (Kansas City, Kans.).

2714. Shuler, R. H., Kupperman, H. S., & Hamilton, W. F. Comparison of direct and indirect blood pressure measurements in rats. *Amer. J. Physiol.*, 1944, 141, 625-629.

2715. Simpson, J. F., & Wellman, M. Emotional reactions in survivors of H. M. C. S. "Valleyfield." *Canad. med. Ass. J.*, 1944, 51, 316-321.

2716. Skutch, A. F. The parental devotion of birds. *Sci. Mon.*, N. Y., 1946, 62, 364-374.—"There are two reasons . . . why we should not expect to see birds engage often in life-and-death struggles in the defense of their nests and young": only threat of attack is required against weaker

animals, and habitual resistance to more powerful predators would jeopardize the existence of the species. Thus natural selection has set a limit to parental devotion.—*E. Girden* (Brooklyn).

2717. Stone, C. P. Effects of electro-convulsive shocks on daily activity of albino rats in revolving drums. *Proc. Soc. exp. Biol., N. Y.*, 1946, 61, 150-151.—A series of one daily electro-convulsive shock greatly reduces voluntary activity in albino rats. The reduction appears, as a rule, during the first 24 hours after the shock and persists for varying lengths of time after all shocks are discontinued.—*C. P. Stone* (Stanford).

2718. Thompson, G. N. The palmo-mental sign. *Bull. Los Angeles neurol. Soc.*, 1945, 10, 174-175.—The palmo-mental sign is elicited by stroking the thenar eminence from thumb to wrist, with a moderately sharp-pointed instrument, such as a key. Employing sufficient pressure to cause some discomfort, the examiner watches for an ipsilateral chin dimple which moves laterally and rostrally, then back. Indicative of diffuse cerebral, particularly cortical, lesions, it is valuable in early general paresis.—*D. K. Spelt* (Arkansas).

2719. Zuckerman, S. The influence of hormones on man's social evolution. *Endeavour*, 1944, 3, 80-83.

[See also abstracts 2557, 2568, 2571, 2587, 2597, 2605, 2606, 2614, 2636, 2642, 2649, 2652, 2681, 2688, 2730, 2733, 2737, 2749, 2757, 2760, 2787, 2793, 2820, 2829, 2838, 2846, 2873, 2920, 2934, 2937, 2940, 2946, 2956, 2957.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

2720. Boyajian, A. The strange trinity called man. *Sci. Mon.*, N. Y., 1946, 62, 355-363.—"That human nature is a highly complex mixture of good and bad is a very old story, but that it is a trinity—a genuine three-persons-in-one trinity—is a discovery of psychoanalysis." The three personalities are the ego, id, and superego. A description is given of their role in behavior and "some of their famous conflicts in history and fiction."—*E. Girden* (Brooklyn).

2721. Gray, H. Brother Klaus; with a translation of Jung's commentary. *J. nerv. ment. Dis.*, 1946, 103, 359-377.—Visions are as worthy of study as any other psychological phenomena. Jung's discussion of the life and some of the visions of Brother Klaus, a fifteenth century Swiss mystic, is presented.—*L. B. Heathers* (Univ. Washington).

2722. Kahn, S. Suggestion and hypnosis made practical; how to get what you want. Boston: Meador, 1945. Pp. 200. \$3.00.—The author presents the following thesis: "Your own success in living is dependent upon knowing the principles underlying this fact: The psychology of suggestion often makes things right or wrong." Hypnosis is discussed in relation to church, advertising, gossip, war medicine, and psychology.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

2723. Kohen, M. The Venus of Willendorf. *Amer. Imago*, 1946, 3, 49-60.—The Venus of Willendorf is an Aurignacian limestone statuette of a naked woman carved with great naturalism but with the head completely and conspicuously covered by a braided structure of globular form worked out very distinctly. The author assembles evidence to prove that the motif of the covered head has derived from anxiety affects emanating from the mother. The anxiety that would have been created in the artist by the sight of his mother's uncovered face would have paralyzed his artistic and sexual potency.—*W. A. Varvel* (Texas A & M College).

2724. Nash, C. B. Position effects in PK tests with twenty-four dice. *J. Parapsychol.*, 1946, 10, 51-57.—Nine subjects were tested in an experiment in psychokinesis (PK) in which they pulled a cord releasing 24 dice at a time from a machine and, while the dice were rolling down an incline plane into a box, the subjects mentally willed them to fall with a previously designated face uppermost. Approximately an equal number of trials were made for each face of the die. A total of 18,048 die-throws were completed with a positive deviation of 312 and a CR of 6.23. Significant declines within the scoring blocks were also found. No difference was found between scores obtained when the subject was 3 feet from the machine and those obtained when the subject was 30 feet away.—*B. M. Humphrey* (Duke).

2725. Rhine, J. B. The psychokinetic effect: a review. *J. Parapsychol.*, 1946, 10, 5-20.—This is a general review of the research on psychokinesis (PK)—the hypothesis that mind may directly influence matter without the use of any known intermediate physical energy. Since the experiments in PK began in 1934, "the PK research has been confirmed by more than a score of collaborators. . . ." The various experimental controls are discussed with a view to ruling out skilled throwing, biased dice, and recording errors. Special emphasis is placed upon the repeated finding of significant effects due to position of the trial in the test sequence, since these significant "position effects" furnish additional evidence against counterhypotheses. Comparisons of size and of numbers of dice per throw reveal no difference in average score in the PK tests, leading to "the interpretation of PK as not governed by physical law of the type familiar to science today." 29-item bibliography.—*B. M. Humphrey* (Duke).

2726. Rhine, J. B. A digest and discussion of some comments on "Telepathy and Clairvoyance Reconsidered." *J. Parapsychol.*, 1946, 10, 36-50.—The author presents various excerpts from correspondence regarding a former article (see 20: 777) and discusses the various criticisms and suggested improvements. His conclusion, after a survey of the evidence, is "that clairvoyance is an established fact of parapsychology, while telepathy remains only a logical possibility."—*B. M. Humphrey* (Duke).

2727. Sachs, H. The transformation of impulses into the obsessional ritual. *Amer. Imago*, 1946, 3, 67-74.—The self-protection of the ego against the

anxiety produced by aggressive impulses, never actually carried out, may create a phobia. In other cases, the anxiety signal is sufficient to initiate not only the suppression but also the repression of offensive impulses, which disappear (incompletely) from consciousness and are replaced by the obsessional ritual. The ritual, with its strict and endless obsessional demands in an alibi, evolves under the heightened pressure of the superego. Id-elements later succeed in appropriating the ritual to the use of instinctual gratification.—W. A. Varvel (Texas A & M College).

2728. Stuart, C. E. GESP experiments with the free response method. *J. Parapsychol.*, 1946, 10, 21-35.—In two series of experiments in extra-sensory perception, an agent looked at a picture in one room, while a subject in another room tried to draw the salient idea in the picture. By a preferential matching method, scores were obtained from weights assigned in the comparison of response drawings with stimulus pictures. The 45 experimental sessions of the first series gave only chance results. In the second series there were 112 experimental sessions with the following results: when the agent and subject were closely related (i.e., twins or married couples), significantly positive results were obtained; when the agent and subject were not related, the results were significantly negative.—B. M. Humphrey (Duke).

[See also abstract 2694.]

FUNCTIONAL DISORDERS

2729. Anderson, R. C. Neuroses of peace and of war. *Occup. Med.*, 1946, 1, 121-144.

2730. Barry, H., Jr. Incidence of advanced maternal age in mothers of one thousand state hospital patients. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 186-191.—Data are presented pertaining to the relation between pathologic conditions in the offspring and advanced maternal age. An extensive investigation of the age distribution of mothers, at the time they gave birth to children who later became psychotic, was made in a study of the case histories of 1,000 patients. "Three points stand out as a result of this investigation. First is the large number of patients (94, or 9.4 per cent) whose mothers were over 40 years of age when the patients were born. Second is the large number of patients (174, or 17.4 per cent) whose mothers died before the patients were 20 years of age. Third is the paradoxical finding that the death rate was relatively higher for the younger mothers than for the older ones. Since the overlap between the first two categories is small, over a quarter of the entire series had mothers who may be said to have been old when the patients were born or who died prematurely."—K. S. Wagoner (DePauw).

2731. Bay, E. Zum Problem der taktilen Agnosie. (The problem of tactual agnosia.) *Dtsch. Z. Nervenheilk.*, 1944, 156, 64-96.—The traditional explanation of tactual agnosia—namely, that sensory

stimuli coming from the periphery are not comprehended (1) owing to failure in the associative arousal of tactual memories deposited in the cognitive center (primary identification) or (2) owing to failure in the associative arousal of the idea of the object as to its total visual, auditory, etc. qualities and its verbal naming (secondary identification)—is not borne out by the findings of the present study. Instead of an impairment of special mnemonic-associative functions, tactual agnosia appears to be a disturbance of cortical sensibility localizable not over in the parietal lobe or gyrus supramarginalis but quite definitely in the middle third of the central convolutions corresponding to the hand-finger field. The differentiation between frontal and parietal central convolutions goes beyond the refinement of the author's methods, but no doubt exists that the central region is concerned. Seven cases of traumatic brain injury (gunshot wounds) are studied after circumscription of brain injury could be clearly established by clinical and X-ray examination. Tactual agnosia was clinically demonstrable in 4 of the cases. The traditional view of tactual agnosia as a disturbance of special mnemonic-associative functions would involve a bilateral agnosia, but in none of these actual cases was the agnosia bilateral. The brain injury was in every case contralateral to the hand clinically evidencing the agnosia.—F. C. Sumner (Howard).

2732. Berlien, I. C. Rehabilitation center: psychiatry and group therapy. *J. crim. Law Criminol.*, 1945, 36, 249-255.—Tolerance and understanding of persons unable to adjust to military life are essential. Three main classes of them are distinguished. The treatment offered is not adequate for all individuals but may be generally ameliorative if persons are handled without sentimentality or excessive authority.—L. M. Hanks, Jr. (Bennington).

2733. Bitterman, M. E. A reply to Dr. Finger. *Psychol. Rev.*, 1946, 53, 116-118.—These comments are concerned with Finger's critical treatment (see 20: 141) of a recent paper by Bitterman on "Behavior Disorder as a Function of the Relative Strength of Antagonistic Response-Tendencies" (see 19: 909). The author clarifies his own position and analyzes Finger's objections. "All situations in which healthy rats have responded convulsively to auditory stimulation may be regarded as conflictful, since the sound has invariably been accompanied by restrictions—physical or psychological—which limit the scope of the animals' behavior. No argument presented by Finger detracts from the validity of this interpretation, which, in the light of present evidence, cannot be easily dismissed."—M. A. Tinker (Minnesota).

2734. Bohnengel, C. A. Psychobiologic factors in the Kenny concept of infantile paralysis. *Arch. phys. Ther.*, 1944, 25, 350-356.—Kenny was the first to consider poliomyelitis from the psychobiologic standpoint. Attention had previously been focused on paralysis, but Kenny introduced three

more considerations: spasm, "mental alienation" (proprioceptive and psychomotor dissociation), and muscular incoordination. The exact significance of spasm is undecided. It is probably physiologic but may carry an element of anxiety. Dissociation and incoordination are apparently psychobiologic reactions, reversible and responsive to psychotherapeutic re-education. Incoordination may be broken down into disordered reciprocal innervation plus a psychobiologic component, substitution. Clinical improvement depends on the relative proportions between paralyzed and dissociated fibers and on the patient's psychobiological ability to respond to re-education. The crux of the Kenny controversy lies in the fact that one group of investigators is working and evaluating on the psychobiological level, the other on the anatomicophysiological level. The facts are not in disagreement. More psychiatric studies are needed.—*M. E. Morse* (Baltimore, Md.).

2735. Brill, N. Q. Neuropsychiatric examination of military personnel recovered from Japanese prison camps. *Bull. U. S. Army Med. Dep.*, 1946, 5, 429-438.—Examination of 4,617 returned prisoners revealed a low incidence of serious psychiatric and neurological disorders. There were 5 psychoses and 34 psychoneuroses; 576 cases showed some significant, but mild, psychological disturbance; 677 of the group showed neurological disorders, mostly (572) polyneuritis, which is probably attributable to severe dietary deficiency. The data are analyzed according to incidence of specific symptoms and the relationship between length of captivity and incidence of psychiatric or neurological disorders. All returnees showed strong aggression toward the Japanese. No common quality was found in the members of the group which might have enabled them to survive, other than a "strong will to live" such that "they never gave up hope."—*R. O. Rouse* (Army Air Forces).

2736. Caprio, F. S. A day in the office of a psychiatrist. *Med. Rec.*, N. Y., 1946, 159, 224-228; 241.—The author discusses the frequency of functional mental disorders, estimated at 6½ million, in the general population, and then presents briefly 10 case histories illustrating the role of psychic factors in the disturbance of physiological functioning and the effectiveness of psychotherapy in correction of such disturbances.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

2737. Davison, C., & Demuth, E. L. Disturbances in sleep mechanism: a clinicopathologic study. II. Lesions at the corticodiencephalic level. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 241-255.—Observations of 25 cases of disturbances in sleep indicated an involvement of the corticodiencephalic structures. Among the conditions noted were compression of the hypothalamus, invasion of the hypothalamus, compression or invasion of the basal ganglia, and tumors implicating the hypothalamus or its pathways, and in 18 of the cases there was increased intracranial pressure. "From this series of cases of corticodiencephalic lesions, it may be

assumed that some fibers for the control of sleep originate in the cortex and reach the hypothalamus via (1) the median forebrain bundle, (2) the fornix and (3) the inferior thalamic peduncle."—*K. S. Wagoner* (DePauw).

2738. De Jong, H. H. Experimental catatonia; a general reaction-form of the central nervous system and its implications for human pathology. Baltimore: Williams & Wilkins, 1945. Pp. xx + 240. \$4.00.

2739. Delay, J., Neuveu, P., & Desclaux, P. Analyse des troubles du langage dans une maladie de Pick; présentation de malade. (Analysis of the speech disorders in Pick's disease; case study.) *Ann. méd.-psychol.*, 1944, 102, 273-276.

2740. Doll, E. A. The feeble-minded child. In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 845-885.—"The material has been organized to emphasize standpoints rather than to survey the detailed literature. The illustrations are designed to portray the feeble-minded as living people rather than as morbid specimens. The emphasis is on mental deficiency as a clinical symptom-complex or syndrome rather than as simple subnormality of intelligence." An extended discussion is devoted to definition and classification. Other major topics are: incidence, characteristics, causes, and social control of mental deficiency. Selective bibliography of about 5 pages.—*L. J. Stone* (Vassar).

2741. Dumas, A. G., & Keen, G. A psychiatric primer for the veteran's family and friends. Minneapolis: University of Minnesota Press, 1945. Pp. 214. \$2.00.—By means of cartoons and non-technical language, the authors present answers to many of the questions which are bound to arise in veterans' families, particularly questions relating to NP diagnoses. References for further reading are included.—*S. B. Williams* (Johns Hopkins).

2742. Flournoy, H. Psychothérapie et «Weltanschauung». (Psychotherapy and outlook on life.) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 50-61.—The nature of the psychotherapist's interest in the 'sick' person depends on the method used. In any case, whatever the therapy, there is a change in the person's outlook on the world, based on the unique patient-therapist relationship. The common goal of the various psychotherapies seems to be to eliminate symptoms, liberate the personality, and promote social adjustment. It is pointed out that Swiss culture is based on 'spirit' rather than 'force,' which is also the basis for psychotherapy.—*R. B. Ammons* (Denver).

2743. Fodor, N. Emotional trauma resulting from illegitimate birth. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 381-384.—The effects of imputed or true illegitimacy upon aspects of emotional development are illustrated by descriptions of two cases. Interpretations of the emotional abnormalities are given.—*K. S. Wagoner* (DePauw).

2744. Gauss, H. The neurotic patient; a discussion of the causes and treatment of neurosis. *Amer. J. digest. Dis.*, 1944, 11, 248-251.
2745. Gross, I. H. Psychiatric study of a patient with paroxysmal hypothalamic dysfunction. *J. nerv. ment. Dis.*, 1946, 103, 466-472.—L. B. Heathers (Univ. Washington).
2746. Gundry, C. H. Psychopathic personality; the use of this term in the Canadian Army overseas. *Bull. Vancouver med. Ass.*, 1945, 22, 5-8.
2747. Halpern, F. Studies of compulsive drinkers: psychological test results. *Quart. J. Stud. Alcohol*, 1946, 6, 468-479.—Thirty-eight men and 9 women compulsive drinkers of age range 29 to 63 had average Wechsler-Bellevue IQ's of 114.9, standard deviation of 14.3. All showed distaste or indifference for tests involving numbers, but there was no general evidence of mental impairment or deterioration. Rorschach test results suggest that the alcoholic is an immature, maladjusted individual who does not recognize or admit personality inadequacies and for whom the conflict must be outside himself. It is important for him to find a passive way of handling his difficulties, a way which will put the problem outside himself and make no active demands upon him.—W. L. Wilkins (U. S. Naval Reserve).
2748. Hamilton, F. J. Group psychotherapy in military medicine. *Northw. Med.*, Seattle, 1944, 43, 247-252.—Hamilton describes methods of group psychotherapy for returned psychoneurotic naval personnel. Treatment is based on the principle of sharing, since their personalities, adjustments to military life, emotional stresses, experiences in the service, and disabilities have much in common. Group reaction in military life is the foundation of security, and the purpose of treatment is to help them to return to some unit, military or civilian. The treatment is explained to the patient, and he knows that hospitalization is limited. The psychobiologic viewpoint is utilized in the discussions, the goals of which are that the patient should accept his illness on an emotional basis and know its causes and mechanisms and the determining personality traits. Although it is too early to evaluate end results, the impression is that the discussions attain the same therapeutic goals as individual interviews.—M. E. Morse (Baltimore, Md.).
2749. Hughes, J., & White, W. L. Amputee rehabilitation: XII. Emotional reactions and adjustment of amputees to their injury. *Nav. med. Bull. Suppl.*, Wash., 1946, March, 157-163.—R. O. Rouse (Army Air Forces).
2750. Karpman, B. Psychopathy in the scheme of human typology. *J. nerv. ment. Dis.*, 1946, 103, 276-288.—More progress might be made in developing human types if one studied the abnormal rather than the normal and studied similarities in motivation rather than similarities in outward behavior. Using this method, the psychopathic type is broken into two groups, a primary idiopathic type requiring long-term institutionalization and a secondary type in which the person is a neurotic or a psychotic with a psychopathic behavioral facade. The former type is also divided into two subgroups, an aggressive-predatory one and a passive-parasitic one.—L. B. Heathers (Univ. Washington).
2751. Klapman, J. W. Group psychotherapy; theory and practice. New York: Grune & Stratton, 1946. Pp. vii + 345. \$4.00.—Part I (2 chapters) deals with the historical background of group therapy and theorizes regarding the cultural origin of group relationships. Part II (3 chapters) is concerned with the dynamics operating in group therapy, especially the relationship of the group to the leader. Part II (8 chapters) describes various group techniques and various situations in which these techniques have been applied. There is an 8-page bibliography.—L. B. Heathers (Univ. Washington).
2752. Klapman, J. W. Group treatment of the mentally ill. *Survey Mid-Mon.*, 1946, 82, 80-81.—Because of the shortage of psychiatrists who could find time to give individual treatment, group treatment received its greatest impetus during the past war. Yet it is by no means merely a makeshift for individual treatment. Rather, the social approach, based on a constructive use of group emotions, is its complement. Emotional catharsis in the psychotic patient can be achieved if he discovers the identity or similarity of his problem with that of others. In group psychotherapy, personality growth through the parents and the family circle is reconstructed. "In all probability, the therapist proves to be a father-surrogate, but one who, it is to be hoped, is less arbitrary than some parents."—R. Lassner (Minn. State Training School).
2753. Lehrman, S. R., & Michaels, J. J. Psychopath-like behavior in war neurotics. *J. nerv. ment. Dis.*, 1946, 103, 446-455.—L. B. Heathers (Univ. Washington).
2754. Lidz, T. Nightmares and the combat neuroses. *Psychiatry*, 1946, 9, 37-49.—The symptom of repetitive nightmares of combat was found to be a major complication of war neuroses in the South Pacific. Study of the etiology and significance, as determined from a review of 25 cases selected at random from a large series of cases, disclosed: (1) a fairly common pattern of dynamics; (2) occurrence in patients unable to withstand affection withdrawal and hostility; and (3) conflict over ambivalent suicidal thoughts provoked by extreme hopelessness.—M. H. Erickson (Wayne County Gen. Hosp. & Infirmary).
2755. Lindenov, H. The etiology of deaf-mutism, with special reference to heredity. Copenhagen: Einar Munksgaard, 1945. Pp. 268. Kr. 25.
2756. McCarthy, R. G. A public clinic approach to certain aspects of alcoholism. *Quart. J. Stud. Alcohol*, 1946, 6, 500-514.—Conclusions from the work with 530 patients interviewed in the New Haven and Hartford Yale Plan Clinics, CA 24 to

64, sex ratio 6.8 to 1, show that clinical management of cases proceeds through three stages: the patient requires assistance in controlling the environmental factors which immediately threaten him, then an attempt is made by staff members to bring about a shift in attitude on the part of the patient toward his problems, and finally a stage is reached where the patient can be more objective about himself and real psychiatric help is possible.—W. L. Wilkins (U. S. Naval Reserve).

2757. Man, E. B., & Kahn, E. Thyroid function of manic-depressive patients evaluated by determinations of the serum iodine. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 51-56.—The thyroid activity, measured by serum iodine determinations, was studied in 26 manic-depressive and in 17 depressed patients, not typically manic-depressive. The authors conclude that "dysfunction of the thyroid cannot be considered as an essential factor in manic-depressive conditions or in manic overactivity or depressed underactivity. There is no way to prove or to disprove that occasionally disturbances of the thyroid may not participate in starting a manic-depressive cycle. In view of the fact that emotions affect the thyroid mechanism, it is conceivable, although the evidence is not yet conclusive, that manic-depressive disturbances may occasionally initiate imbalance of thyroid function."—K. S. Wagoner (DePauw).

2758. Meissner, J. H. The relationship between voluntary non-fluency and stuttering. *J. Speech Disorders*, 1946, 11, 13-23.—In an experimental test of the negative practice theory, 24 stutterers twice read a series of ten 500-word passages, arranged to compare frequency of stuttering in control passages and readings with 5%, 25% and 50% of the words underlined for voluntary stuttering. Frequency of stuttering was significantly less on non-underlined words in the passages in which 50% and 25% of the words were voluntarily stuttered and also less in these passages than in the control passages. There were no significant differences in the amount of stuttering on the control passages immediately following the several experimental passages. Even in these control passages, however, adaptation was greatest immediately following the most frequent (50%) voluntary stuttering. There was more stuttering on words that are nouns, adverbs, and adjectives that occupy the initial position in a sentence, contain an initial consonant, and are over 5 letters in length.—W. H. Wilke (U. S. Naval Reserve).

2759. Meng, H. Psychologie und Endokrinologie. (Psychology and endocrinology.) *Schweiz. Z. Psychol. Anwend.*, 1943, 1, 198-201.—To evaluate the effects of psychotherapy in cases where endocrine disturbances are found, it will be necessary to follow a number of cases and controls over a period of years. The case history is given of a woman suffering from pruritis vulvae and amenorrhea. Brief psychotherapy, aimed at giving insight into the function of the symptoms, was successful after medical treatment had failed over a period of years. There

exists a need for closer co-operation between the endocrinologist and psychologist in such cases.—R. B. Ammons (Denver).

2760. Ombredane, A. *Etudes de psychologie médicale. II. Geste et action.* (Studies in medical psychology: II. Gesture and action.) Rio de Janeiro: Atlantica Editora, 1944. Pp. 129.—See *Biol. Abstr.* 19: 4646.

2761. Orgel, S. Z. *Psychiatry today and tomorrow.* New York: International Universities Press, 1946. Pp. 514. \$6.00.—The author offers a textbook of psychiatry, psychoanalytically oriented, based upon his psychiatric lecture notes for nurses.—M. H. Erickson (Wayne County Gen. Hosp. & Infirmary).

2762. Perlson, J. Psychologic studies on a patient who received two hundred and forty-eight shock treatments. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 409-411.—The case history of a white man, aged 27, who received 94 metrazol shock treatments, 152 electric shocks, and 2 treatments of electric narcosis, is examined with special reference to possible intellectual or physical sequelae resulting from the great number of shock treatments. There was no apparent detrimental effect, and after this series of treatments the patient's condition greatly improved, to the extent that he was paroled. From the results of psychological tests and clinical observations the author concludes that "it appears from this case that convulsive shock therapy does not lead to intellectual, emotional or physical deterioration."—K. S. Wagoner (DePauw).

2763. Reid, L. D. Some facts about stuttering. *J. Speech Disorders*, 1946, 11, 3-12.—This article attempts to list the principal points of agreement about the incidence, cause, and treatment of stuttering. About one person in a hundred is a stutterer; there are more male stutterers than female (ratios found range from 2 to 1 to 10 to 1); in about 85% of the cases stuttering begins before the age of 8; the symptoms vary greatly with the social situation and there are large individual differences; stutterers have more stuttering ancestors than do nonstutterers; more stutterers are found in twinning families; and some investigators report more left-handedness and ambidexterity among stutterers than among nonstutterers. Many studies report organic differences between stutterers and nonstutterers. Other studies emphasize environmental differences, such as premature diagnosis of stuttering by parents and others, and physical or emotional shock to the child. The published recommendations of 20 authorities indicate a wide variety of clinical procedures for treatment, of which the most frequent are modifying the environment to enhance feelings of security, modifying the stutterer's attitude toward his speech, using rest and relaxation procedures, modifying the speech patterns, and setting up simplified speech situations to facilitate reconditioning. It is concluded that interpretation of experimental results is extremely difficult; this accounts for the persistence of conflicting theories and calls

for a comprehensive research program. 38-item bibliography.—W. H. Wilke (U. S. Naval Reserve).

2764. Röttgen, P. **Über Störungen der Wahrnehmungen am eigenen Körper bei cerebralen Krampfanfällen.** (Disturbances in body perception in cerebral convulsions.) *Dtsch. Z. Nervenheilk.*, 1944, 156, 1-13.—Three cases are presented in which as many different types of brain injury led to convulsive attacks and particularly to somesthetic disturbances: (1) A glioblastoma of the posterior third of the 1st and 2nd convolutions of the right frontal lobe had grown over into the lateral thalamus and corpus callosum. The patient's left arm, paralyzed from repeated convulsive attacks, was not perceived as lying there paralyzed. (2) A congenital arteriovenous aneurysm of the parietal area of the left hemisphere resulted as early as age 9 in an underdevelopment and subsequent spastic paralysis of the right leg and at age 20 in tonic and clonic convulsions of the other leg. The patient complained of vertigo and perceived his arm, which lay upon his breast, as if it were above his head as a prolongation of his body. (3) A 17-year-old normally developed youth, hit slightly to the left on the parietal-occipital region by a falling metal vessel which cut a 4-cm. bleeding wound, experienced 8 months afterwards a convulsive attack in his right leg, whereupon he had the feeling that his leg was bending at the knee joint when in reality it was lying fully extended.—F. C. Sumner (Howard).

2765. Rubin, H. E., & Katz, E. **Motion picture psychotherapy of psychotic depressions in an Army general hospital.** *Sociometry*, 1946, 9, 86-89.—Auraton films, showing multi-colored, changing crystalline shapes, accompanied by slow, somewhat sad music, were shown to depressed patients in groups of five to ten, three or four times a week. The film was followed by a discussion period. Therapeutic benefits were shown in that the film (1) provided emotional catharsis, (2) "provided ventilation of ruminative, free floating ideas as occur in hypnagogic stupors and dream states," (3) rendered patients more accessible to psychotherapy, (4) served to gratify basic desires, and (5) set up a social situation resulting in "a social sense and esprit de corps."—G. A. Kimble (Brown).

2766. Sargent, W., & Shorvon, H. J. **Acute war neurosis; special reference to Pavlov's experimental observations and the mechanism of abreaction.** *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 231-240.—"The clinical observations on a group of patients with acute war neuroses seen at the time of the Normandy invasion are compared with the observations of Pavlov on his experimental animals with regard to their symptoms and treatment. Special attention is also given to the mechanism of therapeutic abreaction in the light of Pavlov's work. Case records illustrate some of the points discussed."—K. S. Wagoner (DePauw).

2767. Sutter, J. **Une famille de psychopathes.** (A family of psychopaths.) *Ann. méd.-psychol.*, 1942, 100, 40-50.

2768. Trent, S. E. **Aphasia, apraxia, and agnosia: a new classification.** *J. nerv. ment. Dis.*, 1946, 103, 213-223.—A new method of classifying aphasias, apraxias, and agnosias is presented. They are grouped into three categories. The first, the syntactic, "is that of the relation between spatially and temporally adjacent sense data on the sensory side and between simultaneous muscle contractions on the motor side"; the second, the semantic, "is that of the relation of sense patterns to memories on the sensory side and of the relation of memories and ideas to motor patterns on the motor side"; and the third, the pragmatic, "is that of the relations between memories and ideas on both the sensory and motor sides and is the level of the comprehension of the sensory situation and of the comprehension of the development of a plan of action for the motor situation." It is suggested that the term "aphasia" be limited to defects at the pragmatic level, whether verbal or nonverbal, "agnosia" to all syntactic and semantic sensory disorders, and "apraxia" to all syntactic and semantic motor disorders.—L. B. Heathers (Univ. Washington).

2769. Warner, N., & Gallico, M. W. **Occurrence of psychoneurotic symptoms on the various services of a naval hospital.** *Nav. med. Bull.*, Wash., 1945, 45, 1119-1124.—The Cornell Service Index was administered to approximately 900 patients in different wards of a naval hospital. The wards ranked as follows in descending order of median scores: psychiatric prison ward; an open psychiatric ward; nonpsychiatric prison ward; gastro-intestinal cases; allergy cases; malaria and filariasis cases; general surgical and neurosurgical cases; general medical cases; orthopedic cases; a control group of hospital corpsmen; and chronic chest cases.—R. O. Rouse (Army Air Forces).

2770. Yacorzynski, G. K., & Neymann, C. A. **A quantitative approach to the study of responses of psychotics in the completion of figures involving visual and motor components.** *J. gen. Psychol.*, 1946, 34, 19-27.—The authors attempted to determine quantitatively differential responses in an 8-figure completion test from 3 groups of subjects—40 normals, 30 manic-depressives, and 30 schizophrenics. Each figure was scored with consideration for specific stipulated points. The time required for the completion of each figure was noted, and a statistical analysis of differences in response was made. Results indicate that sex, age, educational status, and the time taken to complete the figure were not significant. Differential responses for manic-depressives could be accounted for by an increase in motor activity. However, in visual motor tests of perception the effect of the motor element must be considered. The responses of the schizophrenics indicated a decrease in motor activity, and their responses for certain of the figures showed that the perceptual process was affected.—R. Whittlesey (Michigan).

2771. Yannet, H., & Lieberman, R. **A and B isoimmunization as a possible factor in the etiology of**

mental deficiency. (Preliminary report.) *Amer. J. ment. Def.*, 1945, 50, 242-244.—"A study is reported of the incidence and distribution of incompatible A and B mother-child blood groups in 280 middle and low grade mental defectives consisting of 157 cases belonging to well-recognized etiological groups, and 123 cases of undifferentiated type. A total of 70 cases of A and B incompatibility was found, but only in 10 of these was the group specific substance absent in both the saliva and the gastric juice of the child. All of these 10 cases were in the undifferentiated group. This strongly suggests the possibility that A and B iso-immunization is of definite etiological importance in an appreciable number of mental defectives at present considered in the undifferentiated or undiagnosable group."—C. N. Cofer (George Washington).

[See also abstracts 2551, 2557, 2576, 2589, 2601, 2602, 2603, 2605, 2617, 2622, 2625, 2655, 2717, 2718, 2760, 2778, 2779, 2780, 2784, 2797, 2801, 2836, 2842, 2848, 2849, 2850, 2883, 2921, 2923, 2924, 2955, 2960.]

PERSONALITY AND CHARACTER

2772. Ahonen, O. Luonne ja ympäristö. Johdatus käytännölliseen psykologiaan. (Character and environment; introduction to practical psychology.) Helsingfors: Tammi, 1945. Pp. 250. 150 FM.—An interpretation of personality is considered under the following headings: temperament and personality; types of personality; emotions and their expression; hypnotism; biological background; behaviorism; subconscious and conscious behavior; the contributions of Freud, Adler, and Jung; learning types; testing procedures; education; group and individual behavior; propaganda; etc.—O. I. Jacobsen (Army of the U. S.).

2773. André-Thomas, M. L'image de mon corps. (The body image.) *Rev. neurol.*, 1942, 74, 1-19.—If visual and tactual imagery of one's body is stripped away and memories and imaginations of such body images are left out of account, the author seriously doubts that there remains a purely intero- and proprioceptive image of one's body in consciousness or in the fringe of consciousness just prior to the execution of an act. It is after the act that an image of the body may arise through afferent channels in case the act falls short or actually fails. On the basis of his own subjective evidence and evidence from singers, paralyzed cases, amputees, and individuals having undergone operations on their central nervous system, the author holds that action is of an automatic character. He does not deny, however, that there exists in the central nervous system some co-ordinator, some physiological mechanism which regulates the play of afferences and efferences. Every voluntary movement, every new act utilizes this mechanism which is modified according to the needs of the moment in order to assure the correct execution of the act. "We decide on the goal; this co-ordinator or physiological mechanism does the

rest." This view is contrary to that held by Lhermitte and Tcherazy on the nature and function of the body image.—F. C. Sumner (Howard).

2774. [Anon.] Study of Indian personality in Tepoztlán, Morelos. *Bol. indigenista, Mex.*, 1944, 4, 185.

2775. Berna, H. Die Graphologie und andere Testversuche. (Graphology and other methods of testing.) *Schweiz. Z. Psychol. Anwend.*, 1943, 1, 270-273.—Graphology has not been developed adequately, due at least partly to its natural limitations and partly to the inadequacy of many people calling themselves graphologists. Graphology can often be used to advantage to supplement and corroborate findings from other tests. Training must provide for basic courses in psychology and psychiatry.—R. B. Ammons (Denver).

2776. Bondy, C. A psychological interpretation of waywardness. *J. crim. Law Criminol.*, 1945, 36, 1-10.—Under the Platonic conception of personality in three levels, waywardness is explained as an inadequate development of reason and passions together with an overdevelopment of appetites. The wayward person is uninterested in good literature or music, shows little ambition or shame, and overindulges in food, sleep, and sex. He is best retrained by stimulating his interests and ambitions and by making him conscious of his personality make-up.—L. M. Hanks, Jr. (Bennington).

2777. Bonnardel, R. Étude analytique d'appréciations subjectives portées sur des traits de la personnalité humaine. (An analytic investigation of subjective evaluations of human personality traits.) *Année psychol.*, 1945, 41-42, 136-147.—Three supervisors were asked to rate the same workmen twice on the traits of occupational success, intelligence (defined as the ability to adapt to new tasks), energy, speed, and character (defined in terms of friendliness and unfriendliness). The two ratings were separated by an interval of four months. The results were treated statistically by the methods of tetrachoric correlation and factor analysis. The findings suggest that the raters distinguished between character and the other traits on which they evaluated the workers. But the other traits were not sharply distinguished one from another. The author suggests that two processes were involved in the ratings: (1) a character rating and (2) a general rating of the worker without regard to any specific trait.—G. A. Kimble (Brown).

2778. Chavany, J. A., & Houdart, B. Abolition partielle de l'image corporelle au cours d'une hémiplegie gauche avec hémianesthésie. (Partial abolition of the body image in the course of a left hemiplegia with hemianesthesia.) *Pr. méd.*, 1946, 54, 80.—This case showed 3 distinctive symptoms: exteriorization of the affected side with a delirious interpretation (anosognosia); ignorance of the paralyzed side (asomatognosia); and indifference to the paralysis (anosodiaphoria). The basis of the anosognosia is disturbance of superficial and deep

sensibility. The authors explain the syndrome as follows: an extensive lesion of the right hemisphere suppresses its function while permitting normal action of the left, thus assuring the functions of discrimination on both sides. A more limited lesion of the right hemisphere, however, does not suppress its function completely, but its influence over the left is insufficient and disturbs the control proper to that hemisphere. Essentially, therefore, left hemisphere predominance is responsible for disturbances of the body image on the left.—*M. E. Morse* (Baltimore, Md.).

2779. Clark, R. A. Aggressiveness and military training. *Amer. J. Sociol.*, 1946, 51, 423-432.—The conflict over the expression of aggressiveness in wartime America is described. Five ex-soldiers are presented as examples of men who adjusted poorly in training camps for that reason. Although their psychiatric histories and the results of psychological studies show great variability in apparent aggressiveness, nevertheless all the examples had strong evidence of inhibitions, frustration, and conflict both in regard to aggressiveness itself and psychosexual adjustment. They demonstrate the need for conscious cultural direction with the co-operative advice of sociologists, anthropologists, and psychiatrists.—*D. L. Glick* (Arlington, Va.).

2780. Dublineau, J. Psychiatrie et biotypologie. (Psychiatry and biotypology.) *Ann. méd.-psychol.*, 1943, 101, 200-218.—Both psychologists and psychiatrists have joined hands in the search for types of human beings. The author reviews typological classifications which are of value to psychiatrists: characterological typologies, such as Jaensch's integrated and disintegrated types, his B-type and T-type eidetics, Jung's intraverts and extraverts, and Kraepelin's dementia praecox and manic-depressive psychosis; temperamental typologies, such as Sigaud's respiratory, muscular, digestive, and cerebral types and Kretschmer's cyclothymes and schizothymes; and anthropological typologies, such as brachiocephalic and dolichocephalic types. Psychiatry brings to the study of biotypology its traditions of clinical observations, according to which the individual is viewed longitudinally, i.e., in evolution. Psychiatry obtains from biotypology material for correcting its observations.—*F. C. Sumner* (Howard).

2781. Epstein, H. L., & Apfeldorf, M. The use of the Rorschach in a groupwork agency. *Rorschach Res. Exch.*, 1946, 10, 28-36.—In a children's day camp the Rorschach has been of assistance in several ways: selection of proper groups and leaders for individual children; provision of leads for discussion with parents and schools; suggestion of appropriate activity programs; and detection of the need for referral to a casework agency. Several case records illustrate the utility of the Rorschach as a rapid means for discovering these and similar data.—*E. M. L. Burchard* (U. S. Naval Reserve).

2782. Gray, H., & Wheelwright, J. B. Jung's psychological types; their frequency of occurrence.

J. gen. Psychol., 1946, 34, 3-17.—Early studies of the frequency of introversion and extroversion for special groups of the population are summarized, showing apparently inconsistent results. The authors attribute this lack of success in simplifying and extending the use of Jung's types by questionnaires to inattention to the four functions insisted on by the originator. A 75-item questionnaire to separate sensation from intuition, and thinking from feeling, as well as introversion from extroversion, is presented. Results from 200 questionnaires are reported in the form of proportions of each contrasting type and the order of frequency of total types. It has been found useful in confirming clinical impressions and as an aid to the untrained in understanding personality. 52-item bibliography.—*I. Hollingsworth* (Michigan).

2783. Green, C. Le graphologie est-elle une branche de la médecine? (Is graphology a branch of medicine?) *Avenir méd.*, Lyon, 1944-1945, 7-17.

2784. Hunt, W. A., & Stevenson, I. Psychological testing in military clinical psychology: II. Personality testing. *Psychol. Rev.*, 1946, 53, 107-115.—The term "personality testing" is used in a broad sense to include paper-and-pencil psychiatric screening devices. The war has brought no novel developments but rather an adaptation and refinement of techniques already available. The most prominent trend has been development of screen tests for use in neuropsychiatric selection. These are paper-and-pencil tests of the inventory type and have proved remarkably successful. Two of the most successful tests are the Personal Inventory (PI) and the Cornell Selectee Index. They detect 50 to 90% of the neuropsychiatrically unfit at a cost of from 3 to 25% of false-positives. This represents greater success than in civilian situations and is one of the outstanding contributions in the war work. The degrees to which several other tests (Rorschach, Minnesota Multiphasic, etc.) were found useful or adequate are discussed. The psychological test should not be substituted for the clinical interview, but one should supplement the other. The stress upon speed and upon classification at the expense of therapy has been limiting, but even so the development of military clinical testing has had a healthy growth and should stimulate postwar clinical psychology. (See also 20: 2122.)—*M. A. Tinker* (Minnesota).

2785. Janis, M. G., & Janis, I. L. A supplementary test based on free associations to Rorschach responses. *Rorschach Res. Exch.*, 1946, 10, 1-19.—The use of a subject's Rorschach responses as stimuli for free association provides additional clinical leads to psychodynamic features of the personality structure. In every one of 25 cases examined by the authors, the free association material thus obtained valuably supplemented the Rorschach results either by (1) confirming and amplifying the quantitative findings, (2) increasing the evidence for qualitative interpretation of specific content symbolisms, or (3) providing independent clues to underlying personality trends. The procedure used in administering the supplementary free association test is de-

scribed, types of responses obtained are outlined, and one case is given in detail, with verbatim responses and a discussion of their significance.—E. M. L. Burchard (U. S. Naval Reserve).

2786. Jones, V. Character development in children—an objective approach. In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 707-751.—"If we add to morality, the ability to reconstruct one's values and the volitional powers sufficient to direct conduct progressively toward such evolving values, then we have character as we shall think of it in this chapter." Both native and environmental factors have been stressed, the view being taken that character development in an individual is a resultant of both sets of factors. "A central thesis of the chapter has been that every individual acquires his character in conformity with the usual laws of conditioning and learning, but that the possibilities for such acquisition and the broad limits thereto are provided by nature. One's character is deeply integrated with his social and personality adjustments. . . ." 34-page bibliography.—L. J. Stone (Vassar).

2787. Kemp, M. W. Conflicts and psychogenic maladjustments incidental to age. *Minn. Med.*, 1945, 28, 715-717.

2788. Lhermitte, J. De l'image corporelle. (Concerning the body image.) *Rev. neurol.*, 1942, 74, 20-38.—The author substantiates his position that the body image is a synthesis of perceptions of extero-, intero-, and proprioceptive excitations and of representations, i.e., memories. The persistence of this body image after loss of bodily parts by amputation, the creation of phantom members after lesions in the spinal roots, plexus, spinal cord and brain, the forgetting of paralyzed parts (anosognosia), the role of disturbances of the body image in the production of apraxia are cited in support of the contention that the body image plays a determining part. Finally, the author points to the complete emancipation of this body image in heautoscopy, i.e., in hallucinatory visions of oneself by oneself, and to negative heautoscopy, i.e., to imperception of one's own image reflected in a mirror.—F. C. Sumner (Howard).

2789. Linn, L. The Rorschach test in the evaluation of military personnel. *Rorschach Res. Exch.*, 1946, 10, 20-27.—Rorschach records obtained from a group of enlisted men assigned to a hospital detachment were analyzed and compared with performance ratings one year later, after 8 months' overseas duty. Responses given by normal, well-adjusted soldiers were found markedly at variance in many respects with norms based on responses of normal, well-adjusted civilians. To explain this discrepancy, the hypothesis is advanced that personality constriction and regression have been produced by military indoctrination. This is stated to be a normal process in the course of adaptation to army life and must be taken into account in the military use of any personality tests based on civilian standards. "Properly restandardized, the Rorschach test is of considerable value in pro-

nosticating the performance of an individual as a soldier."—E. M. L. Burchard (U. S. Naval Reserve).

2790. Loebowitz-Lennard, H., & Riessman, F., Jr. A proposed projective attitude test. *Psychiatry*, 1946, 9, 67-68.—Concealed or unconscious attitudes constitute a serious unsolved problem in research on attitudes. A test, based on shift of emphasis from the present to the past, from the personal to the impersonal, and from the organized to the ambiguous, is proposed and discussed.—M. H. Erickson (Wayne County Gen. Hoap. & Infirm.).

2791. Maberly, A. Symposium on personality. II. Personality of the problem child. *Brit. J. educ. Psychol.*, 1946, 16, 5-12.—Personality in the problem child represents a clinical problem which encompasses the whole individual in dynamic relationship with the environment. Maladjustment, properly conceived only in a relative sense, is comprehensible not in terms of the causal relationship of scientific method but rather as a unique and individual constellation having significance only in reference to the particular case. Clinical judgment involves the use of intuition rather than logical deduction, and typologies and personality tests are only of supplementary value. Diagnosis of maladjustment demands consideration of certain temperamental factors, of which two, instability and sensitivity, are here mentioned. Both are constitutionally determined, although the second is more susceptible to education; the immediate consequences of both are similar, but the most favorable environmental requirements are largely opposite in character. A further concept of great value in clinical diagnosis is that of maturation; and where there is a lack of correspondence of emotional with physical and intellectual growth, breakdown often is involved. (See also 20: 1561.)—R. C. Strassburger (St. Joseph's College for Women).

2792. Raven, J. C. Controlled projection: a standard experimental procedure. London: H. K. Lewis, 1944. (With 2 test booklets.) Pp. 38. 12s. 6d.—Various techniques of projection testing are presented. The main one used in the results described is to give the subject a sketch of a man or woman somewhat resembling him- or herself and to ask a series of questions about what this hypothetical individual likes, is interested in, is afraid of, or worried about, etc. At the same time the subject is asked to draw anything he likes. A similar technique can be used with children and with groups of adults. In his answers, the subject is said to 'project' and develop his own ideas and desires. Illustrative case histories and the corresponding projected material are given.—M. D. Vernon (Cambridge).

2793. Roe, A. Alcohol and creative work. Part I. Painters. *Quart. J. Stud. Alcohol*, 1946, 6, 415-467.—A study of the personality and work habits of 20 outstanding artists, subdivided into 3 groups according to use of alcohol—5 moderate drinkers, 9 steady social drinkers, and 6 excessive drinkers—shows that all are above average intelligence and in general have a much stronger tendency toward

abstract thinking than the general population has. Most are sensitive nonaggressive persons. Lives of excessive drinkers were less routinized than those of the others; this is a reflection of other disturbances rather than a cause of them. By means of Monroe's inspection technique, the excessive drinkers were shown to be significantly more maladjusted than either of the other two groups, but the TAT and Rorschach tests did not reveal differences.—*W. L. Wilkins* (U. S. Naval Reserve).

2794. Vischer, A. L. *Weltanschauung und Lebensalter*. (World-outlook and age.) *Schweiz. Z. Psychol. Anwend.*, 1943, 1, 171-179.—It is possible to identify many changes in outlook accompanying aging. Physical and psychic changes are inseparable. Time values change markedly, making it hard for adults and children to understand each other. With increasing age there is a turning inward, a loss of affect, a desire for quiet, an increasing simplicity of creation. With these changes comes an appreciation of different aspects of the world.—*R. B. Ammons* (Denver).

[See also abstracts 2568, 2747, 2750, 2877, 2883, 2886, 2905, 2943, 2950, 2956.]

GENERAL SOCIAL PROCESSES

(incl. Aesthetics)

2795. Allee, W. C., & Douglass, M. B. A dominance order in the hermit crab, *Pagurus longicarpus* Say. *Ecology*, 1945, 26, 411-412.

2796. [Anon.] Report of a conference on Germany after the war. *Amer. J. ment. Def.*, 1945, 50, 149-200.—This is a report of a conference called by a Joint Committee on Post-War Planning, representing a number of organizations, and held in 1944. The purpose of the conference, members of which were experts in the psychological sciences, "was to define the nature of this German character and its probable reaction to defeat and post-war settlements, to point the finger at the dangers to be recognized and advantages to be secured by certain types of attitude and planning, and to explore ways and means of effecting a lasting change in German character structure . . . the preponderant evidence suggests that the dangerous qualities in the character of the Germans can be changed." An abstract of the proceedings is given, and in 11 appendices the material is elaborated.—*C. N. Cofer* (U. S. Naval Reserve).

2797. Bales, R. F. Cultural differences in rates of alcoholism. *Quart. J. Stud. Alcohol*, 1946, 6, 480-499.—Examination of drinking needs and habits of cultural groups shows that attitudes have different effects on the rate of alcoholism: complete abstinence, generally for a religious reason; a ritual attitude, also religious and characteristic of some aboriginal tribes; a convivial attitude, where drinking symbolizes social unity and loosens up emotions which make for social ease; and a utilitarian attitude, which includes medicinal drinking and other types

calculated to further self-interest rather than social and expressive purposes. The last, if commonly held, is the one most likely to lead to widespread compulsive drinking. Inebriety tends to be pronounced where inner tensions or needs for adjustment of many individuals are high. A final cultural factor is the degree to which the culture provides suitable substitutes for the inner tensions and needs which it creates.—*W. L. Wilkins* (U. S. Naval Reserve).

2798. Bally, G. *Versicherung und Gesundheitsmoral*. (Insurance and health morale.) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 22-36.—Why is health morale better in the case of uninsured than in the case of insured persons? Our culture has taken the emphasis off creativity in work and put it on quantitative reward in the form of monetary income. It then becomes a matter of little importance whether this money is obtained through working or through sickness insurance. As the intellect loses its desire for creativity, an interest develops in security, such as that to be found in sickness insurance and attention by a doctor. To fight these trends, the physician must take a political-social stand going beyond a demand for 'vegetative' security and including provision for a meaningful existence aimed at developing personality. The exclusion of the 'insurance-neurotic' from insurance participation is not the solution to the problem.—*R. B. Ammons* (Denver).

2799. Barnett, J. H. Christmas in American culture. *Psychiatry*, 1946, 9, 51-65.—Discussion is offered of the Christmas celebration in the United States as an extensive culture pattern of ancient Christian and pagan origin, now overlaid with secular and religious significances. The actual individual significances vary widely and are in accord with childhood training.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirmary).

2800. Belanger, A. F. An empirical study of superstitions and unfounded beliefs. *Proc. Ia Acad. Sci.*, 1944, 51, 355-359.—An experimental form of the Multi-Attitude Scale developed by Lauer was given to 200 college students. The scale is composed of 74 items of miscellaneous nature loaded with 26 superstitions and unfounded beliefs, making a total of 100 items. The subjects indicated their feelings or attitudes on a 5-point scale from "most displeasing or very disagreeable" to "very agreeable or very pleasing." The results are expressed in terms of the superstitions or beliefs that were checked the greatest number of times in a given way, and as correlations between superstition and grades in psychology (— .114) and between superstition and intelligence (— .109).—*B. Wellman* (Iowa).

2801. Bergler, E. *Unhappy marriage and divorce; a study of neurotic choice of marriage partners*. New York: International Universities Press, 1946. Pp. 167. \$2.50.—The author discusses briefly, on the basis of clinical psychoanalytical experience, a great variety of factors that enter into marital maladjust-

ment.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

2802. Bonney, M. E. A sociometric study of the relationship of some factors to mutual friendships on the elementary, secondary, and college levels. *Sociometry*, 1946, 9, 21-47.—On a number of psychometric indices, the performances of mutual friends were compared with those of pairs of students who were considered non-friends because the friendly advances of one member of the pair were not returned by the other. Results indicate that academic achievement has little to do with determining these relationships. General intelligence level is only slightly more important. Recreational interests of elementary-school students were largely uncorrelated for mutual friends. A somewhat more reliable relationship between occupational interests for friends was found at the secondary and college levels. Socioeconomic background seemed to play a small but consistent part in determining friendships. In the elementary grades, results of the California Test of Personality showed little association with friendship formation. At the high-school level, however, social and emotional adjustment, as measured by the Bell Adjustment Inventory, appeared to play a significant role. Highest correlations were obtained between scores of mutual friends on a scale designed to measure the ability to win friends which had been prepared by the author. 31-item bibliography.—*G. A. Kimble* (Brown).

2803. Chisholm, —. Emotional problems of demobilization. *Bull. Vancouver med. Ass.*, 1944, 21, 53-55.

2804. Chisholm, G. B. The reestablishment of peacetime society; the responsibility of psychiatry. *Psychiatry*, 1946, 9, 3-11.—Three requirements are discussed as basic to any hope of permanent world peace: (1) security by elimination of occasion for valid fear of aggression; (2) opportunity to live reasonably comfortably, economically; and (3) the development of a social state characterized by the dominance of mature, adaptable, and nonneurotic persons, primarily a problem for psychiatry.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

2805. Chisholm, G. B. The reestablishment of peacetime society; the responsibility of psychiatrists. *Psychiatry*, 1946, 9, 12-20.—Discussion is given of the need, in establishing a genuine peacetime society, of utilizing all varieties of knowledge and of skills that relate to the adjustment and integration of the individual and of society. It is emphasized that there should be no restriction to those forms of professional knowledge now accepted by present-day psychiatry. Rather, psychiatrists need to become increasingly aware of and interested in all possible avenues of understanding human interrelationships.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

2806. Doob, L. W. Communication of information about the United States. *J. consult. Psychol.*, 1946, 10, 45-50.—There are three assumptions behind the desire of the United States Government to

publicize itself abroad: (1) the more people know about us, the more they will like us; (2) increased understanding will discourage warlike tendencies and encourage economic contacts; and (3) people in foreign countries do not think much about the United States. The function of a government information service is to supplement and not attempt to supplant the normal channels of communication. This it does (1) by disseminating information which is needed and which is not being communicated by the normal channels and (2) by correcting misinformation regardless of its source.—*S. G. Dulsky* (Personnel Inst., Chicago).

2807. Duffy, J. A philosophy of poetry based on Thomistic principles. *Cath. Univ. Amer. phil. Stud.*, 1945, 83. Pp. xi + 258.—The discussion has three parts: the nature of beauty, the nature of a fine art, and the nature of poetry. The essence of poetry is considered from a "metaphysical and psychological" standpoint, i.e., from Thomistic principles. The thesis is developed that beauty is "a transcendental attribute of being, distinct from truth and goodness." The major difference between the poem and the other artifacts (with the possible exception of music) is that the poem does not exist outside the mind.—*P. R. Farnsworth* (Stanford).

2808. Duvall, E. M., & Motz, A. B. Attitudes of second-generation daughters to family living. *J. consult. Psychol.*, 1945, 9, 281-286.—This report is based on data obtained from 403 native-born single white girls, ages 14 to 24. The indications from the data are (1) that the second-generation girl avoids both the romantic "complex" and the feminine alliances that typify the girl of American-born parents and (2) that the second-generation girl effects her socialization through more active acquisition of knowledge about marriage and earlier and preferred friendships with boys.—*S. G. Dulsky* (Personnel Inst., Chicago).

2809. Forel, O. Psychologie de l'insécurité. I. (Psychology of insecurity.) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 66-74.—The war has suddenly removed the guarantees of civilized and policed life and thrown men back into their 'original insecurity.' Civilization has performed the function of providing methods for avoiding or masking feelings of anxiety and insecurity. Fear is the primary and most powerful force associated with the instinct of self-preservation. Fear affects the individual and the group, with or without object. Politics seeks to play on man's many fears. Both individuals and groups are aided in their search for security of various sorts by control over money and material possessions.—*R. B. Ammons* (Denver).

2810. Forel, O. Psychologie de l'insécurité. II. (Psychology of insecurity.) *Schweiz. Z. Psychol. Anwend.*, 1943, 1, 189-198.—Fear becomes attached to particular objects through a conditioning process. Thus it is important to know the principles of conditioning. Revolutionary slogans are given emotional value by conditioning. Fear is prevented by the various modes of acting which are called culture

or civilization. 'Bionomic' theory concerns itself with these problems, basing its laws on experimentation, such as that done by Pavlov. It is by making use of these established principles that statesmen will be able to control the emotions and prevent future social catastrophes such as wars.—*R. B. Ammons* (Denver).

2811. Gesell, A. Some relationships between maturation and acculturation. *J. nerv. ment. Dis.*, 1946, 103, 518-520.—Abstract.

2812. Greenberg, B. The relation between territory and social hierarchy in the green sunfish. *Anat. Rec.*, 1946, 94, 395.—Abstract.

2813. Hartley, E. L., & Mintz, A. A technique for the study of the dynamics of the racial saturation point. *Sociometry*, 1946, 9, 14-20.—The racial saturation point is defined in terms of the maximal number of individuals of a particular minority group which may be present in a given population without causing friction. To test the saturation point for several ethnic groups, subjects were asked to state the number of people from each such group which might be present in a class of 100 students before they, personally, would begin to feel uncomfortable. Results showed significant differences in the median number of individuals from minority groups that different student groups would tolerate. The all-around average student was the most tolerant. Serious students and outstanding athletes were, in the order given, less tolerant. The patterns of preference, however, were much the same for all student groups and were very similar to patterns of nationality preferences obtained from college students by other methods.—*G. A. Kimble* (Brown).

2814. Kaufman, H. F. Members of a rural community as judges of prestige rank. *Sociometry*, 1946, 9, 71-85.—Fourteen individuals who served as judges of prestige rank of members of a New York rural community are studied with reference to the extent to which their ratings agreed with those of other judges, their objectivity and discrimination in rating, and biases evident in their ratings. In general, the ratings of any particular judge are shown to correlate well with the composite judgment of the rest of the group of raters. The degree of objectivity, as evidenced by the judge's ability to distinguish between his own likes and dislikes and the way in which a person was regarded by the community, was found to vary considerably. To some extent, the judge's objectivity seemed to be influenced by his own prestige rank. The degree of bias of the individual judges is also shown to vary a great deal. A considerable portion of this bias is shown to represent the favorable or unfavorable attitude of the individual toward a given social group.—*G. A. Kimble* (Brown).

2815. Landis, P. H. Rural-urban migration and the marriage rate—an hypothesis. *Amer. sociol. Rev.*, 1946, 11, 155-158.—The study is concerned with the hypothesis that the mobile person is more likely to be married than the stationary person.

Data, collected in the State of Washington in 1942, were obtained by asking high-school and eighth-grade pupils about the residence, marital status, and age of older brothers and sisters who had already left school. This group of over 14,000 was then classified according to age (males over or under 26, females over or under 23), marital status, and migration or failure to migrate between rural and urban areas. For males, in all instances in both age groups, the mobile group was the most married regardless of the direction of movement and the sex ratio in the new area of residence. The same, with one slight exception, was true for the mobile females. There is discussion of the factors which make migration across urban and rural lines favorable to early marriage.—*V. Nowlis* (Iowa).

2816. Lawton, G. You cannot demobilize old people. *Survey Mid-Mon.*, 1946, 82, 105-107.—Since, according to census estimates, our population is growing older, providing useful, satisfactory occupation for the older citizen is an important task. "Physical well-being and, to an even greater extent, the mental health of the man or woman over sixty is impaired unless the day is occupied with activities of either personal or social value. . . ." As a neurotic unconsciously either exploits a genuine illness or invents one in order to get attention, idleness will compel our older population to resort unconsciously to such neurotic devices. To prevent maladjustment of old age, a plan of action is suggested including provisions for part or full-time employment, psychological counseling, development of hobby, handicraft, and recreational clubs, and other techniques for healthy socialization.—*R. Lassner* (Minn. State Training School).

2817. Lazarsfeld, P. F. Radio and international co-operation as a problem for psychological research. *J. consult. Psychol.*, 1946, 10, 51-56.—The author outlines nine major social situations in which radio can play a role in postwar efforts for international co-operation. Three important questions indicate the need for psychological research: (1) How can we enhance the prestige of and interest in the UNO? (2) What is the true relation between peace and "good will"? (3) Can we successfully direct American propaganda to other countries without its resulting in unanticipated and dangerous boomerang effects?—*S. G. Dulsky* (Personnel Inst., Chicago).

2818. Leeper, R. We cannot win the peace unless. . . . *J. consult. Psychol.*, 1946, 10, 8-14.—Our difficulties in the postwar world are based on insufficient knowledge in the social science field; we are lacking in ability to deal with social problems. A government-financed social science research program, prosecuted as vigorously as our wartime physical science research, offers the only possibility for providing the knowledge necessary for winning the peace.—*S. G. Dulsky* (Personnel Inst., Chicago).

2819. Mead, M. Research on primitive children. In *Carmichael, L., Manual of child psychology*. New York: Wiley, 1946. Pp. 667-706.—". . . the history of the uses to which psychology has put data

about primitive children and data about primitive peoples when constructing theories of developmental psychology is a history of the changing relationship between anthropology and psychology." Certain relations between psychological theory and anthropological findings are reviewed. The psychologist asks of the anthropologist negative data to correct his hypotheses and positive data to amplify them. Current approaches "stress that a fully acculturated member of a living culture differs in every respect, and systematically, from members of any other culture." They deal with the "complex interrelationships between cultural forms and the developing personality." The development and refinement of methods of observation are discussed in detail along with broader aspects of research methods. "Nothing . . . is so pressing as more intensive detailed studies of the development of children in living primitive societies" because of their information for the potentialities of human behavior and because of their rapid disappearance. Since there is a marked lag in anthropological publication, the 64-page bibliography includes a section on unpublished major researches (as of 1940).—*L. J. Stone* (Vassar).

2820. Mead, M. Cultural patterning of maturation in selected primitive societies. *J. nerv. ment. Dis.*, 1946, 103, 520.—Abstract.

2821. Montagu, M. F. A. Anti-feminism and race prejudice. *Psychiatry*, 1946, 9, 69-71.—A brief discussion is offered of the similarity of the arguments offered to support ideas of racial inferiority and ideas of feminine inferiority.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

2822. Morris, C. Signs, language and behavior. New York: Prentice-Hall, 1946. Pp. xii + 365. \$5.00.—A detailed and critical analysis of semiotic is presented under the following headings: signs and behavior; language and social behavior; modes of signifying; adequacy, truth, and reliability of signs; types of discourse; formators and formative discourse; individual and social import of signs; and the scope and import of semiotic. An appendix discusses the views of Tolman and Hull, presents other historical material, and concludes with a glossary and a 33-page bibliography.—*W. S. Hunter* (Brown).

2823. Odier, C. Valeur et fonction des phénomènes psychiques. (Value and function of psychic phenomena.) *Schweiz. Z. Psychol. Anwend.*, 1943, 1, 164-171; 273-280.—'Infantile moral realism' has both a value and a function. It is the first step in human moral development and the foundation for the parent-child relation. Its value comes as it forms the basis for the future development of conscience. Examination shows that very often function and value do not coincide. As the moral sense of the child develops, there is a decreasing dependence on authority and parents and an increasing ability to moralize on grounds within himself. There is thus a gradual transition from dominance of function to dominance of value. Consideration will show that the adjective 'false' does not apply to value but to its motivation, and this to the extent to which the

determining motives are conscious.—*R. B. Ammons* (Denver).

2824. Ojemann, R. H., & Yarrow, L. An experimental study of the development of democratic behavior. *Proc. Ia Acad. Sci.*, 1944, 51, 389-395.—It is the purpose of this paper to describe briefly a series of tests which have been devised to study democratic behavior at the elementary-school level, and to indicate the effects on behavior of certain special experiences that have been introduced. The conception of democracy, with which the paper is primarily concerned, involves consideration of the effect which a rule, or law, or one's behavior has on other individuals. Four test situations were devised for use with fourth-, fifth-, and sixth-grade pupils. It was found that the behavior of these subjects was predominantly undemocratic. A program of training aimed at changing the behavior is outlined.—*B. Wellman* (Iowa).

2825. Parker, D. H. The principles of aesthetics. (2nd ed.) New York: Crofts, 1946. Pp. viii + 316. \$3.00.—This new edition is not in any essential manner different from the first edition published some 25 years ago. The method of approach accepted by the author of the book remains almost completely qualitative. For each of the 15 chapters there is a bibliography of book and journal-article titles.—*P. R. Farnsworth* (Stanford).

2826. Patrick, C. Different responses produced by good and poor art. *J. gen. Psychol.*, 1946, 34, 79-96.—The responses of 20 college graduates to six examples each of good and poor art were compared to determine which type of art produced more mental activity and greater stimulation of the imagination. Examination of responses indicated that good art elicited more thought changes and ideas than did poor art. Voluntary remarks suggested that good art stimulated imagination to a greater extent. Subjects reacted more favorably to better quality pictures. Good pictures produced more self-projection and evoked more memories. The author concludes that differences obtained were due to differences between the two sets of pictures with respect to artistic merit.—*R. W. Heyns* (Michigan).

2827. Sachs, H. What would have happened if . . . *Amer. Imago*, 1946, 3, 61-66.—In answer to the question of the value of a creative writer's biography for the understanding of his work, the author supports by examples from Grillparzer, Keller, Shakespeare, Dickens, Jane Austin, and Dostoevski his belief that the mere facts are in most cases meaningless. The individual power which subordinates these elements to its purpose can be discovered and understood, not by accepting biographical data as the raw material for the work, but by using them "to find and fixate the exact spot where the creative fantasy was stirred, the spot where it deviated from the reality and replaced it by a world of its own making."—*W. A. Varvel* (Texas A & M College).

2828. Seward, J. P. Aggressive behavior in the rat. IV. Submission as determined by condition-

ing, extinction, and disuse. *J. comp. Psychol.*, 1946, 39, 51-76.—The purpose of this series of experiments was "to determine whether the empirical phenomena of conditioning experiments could be duplicated in the effects of fighting on the social responses of rats. If they could, then there was every reason to believe that the same principles would eventually be found to account for both." The results which invited description in terms of acquisition, extinction, stimulus generalization, and retention of a conditioned fear were as follows: The day after a fight the average loser was less aggressive against the winner or another rat. Exposure to an inoffensive rat restored the loser's aggressions towards any other rat, including the winner of the previous bout. Disuse produced no consistent change in the loser's aggressions. Other results, such as the average winner's loss in aggressions after two victorious bouts, suggested a theory of neural mechanisms of submissive, aggressive, and fighting behavior. (See also 20: 518, 519, 520.)—*K. F. Muenzinger* (Colorado).

2829. Smith, M. A research note on homogamy of marriage partners in selected physical characteristics. *Amer. sociol. Rev.*, 1946, 11, 226-228.—"This paper carries a step further the study of marital selection, homogamy, and assortative mating of university students begun several years ago with data on intelligence tests [see 16: 693]. The present data, on 100 marriages, both partners of which were University of Kansas students, . . . include data from physical examination records," such as items of the medical history and measurements of anthropometric and physiological characteristics. "To the extent that these data provide a basis for generalization, it may be concluded that there is only a slight and unreliable tendency for marriage partners to resemble each other in physical characteristics." Further research problems of assortative mating are discussed.—*V. Nowlis* (Iowa).

2830. Walsh, J. F. Facing your social situation; an introduction to social psychology. Milwaukee: Bruce, 1946. Pp. x + 237. \$2.75.—Taking the Scholastic position that man is a being endowed with an intellect capable of transcending sensory knowledge, with a will attracted by but not determined by patent or hidden motives, and with natural inclinations that draw him toward but do not impel him to live in a social group, Walsh reviews the psychological principles underlying the forming of social situations, the reactions they may evoke (cooperation, competition, crime, war, etc.), and modes of control (propaganda, leadership, regimentation, etc.). Enduring social control will never be achieved through a philosophy that ignores the rights of the individual. The Catholic angle is presented on some of the current practical social problems which have their origin in the family, the church, the school, the workshop, and the state. For the student there are an introductory chapter devoted to study suggestions and an appendix containing discussion questions.—*M. Sheehan* (Hunter).

2831. Warren, R. L. The Naval Reserve officer: a study in assimilation. *Amer. sociol. Rev.*, 1946, 11, 202-211.—The author finds the "fusing of thousands of young American men into the naval service as Reserve officers . . . an excellent example of cultural assimilation under special circumstances" and discusses the many factors which permitted "this assimilation to succeed at all, when so much was against it." These favorable factors included: some attraction and favorable disposition toward military and quasi-military activity, a patriotic factor, suspension of rigid formalities in the Navy, sudden assignment to a social role replete with stereotype, social facilitation of learning the role at training school, recognition of the necessary duration of the role, coercion, responsibility for leading enlisted men, and the special factors arising during sea duty. There is a description of the course of assimilation, of the other social groups of the Navy to which adjustment had to be made, and of the important effects of the large, dynamic group of reservists on the Navy itself. "It can be said that the assimilation, however satisfactory, was temporary; a result of a complex set of factors on which all the others were based—there was a war going on."—*V. Nowlis* (Iowa).

2832. Wilbur, G. B. The reciprocal relationship of man and his ideological milieu; a primal scene from ancient Egypt and its role in the genesis of a cosmology. *Amer. Imago*, 1946, 3, 3-48.—Scenes on the walls of the 18th Dynasty temple of Deir el Bahri (ca. 1792, B.C.) are described which depict the genesis, birth, and life history of Queen Hatsheput as a man, son of the God Amun-Re. The author discusses the meaning of this primal scene in its setting in the Egyptian culture and summarizes the political motives leading to the creation of the fantasy. Following an analysis of the unconscious motivation of the contents of this primal scene, he considers how it epitomizes the dynamics of Egyptian cultural development and how it portrays in a displaced form what we cannot know directly about the psychology of the individual Egyptian.—*W. A. Varvel* (Texas A & M College).

2833. Williams, F. W. Polling postwar issues. *J. consult. Psychol.*, 1946, 10, 35-44.—Polls of public opinion perform a useful and desirable function in our society by revealing attitudes and by testing reaction to debate. Results of polls indicate that people will orient their thinking on postwar issues around the matter of employment and that little thought has been given to the particular problems in the international sphere which will certainly torment us.—*S. G. Dulsky* (Personnel Inst., Chicago).

2834. Wirz, P. Exorzismus und Heilkunde auf Ceylon. (Exorcism and mental hygiene in Ceylon.) Bern: Hans Huber, 1941. Pp. 292. Fr. 18.

[See also abstracts 2546, 2559, 2570, 2579, 2587, 2696, 2712, 2719, 2723, 2729, 2742, 2774, 2781, 2793, 2794, 2840, 2850, 2870, 2914, 2929, 2931, 2941, 1943, 2945, 2950, 2953, 2956, 2958.]

CRIME AND DELINQUENCY

2835. Burt, C. *The young delinquent*. (4th ed.) London: University of London Press, 1944. Pp. xx + 662. 21s.—The whole volume has been revised and the bibliography enlarged and brought up to date. The working of the Children Act and of the Child Guidance Clinics is discussed in greater detail than heretofore, since sufficient material has now accumulated to make possible the assessment of their working. An appendix has been added dealing with the chief methods and results of the numerous fresh investigations of juvenile delinquency, which appears to have increased so rapidly in recent years. A section is also included on the effects of war on juvenile delinquency and on the needs of postwar reconstruction in this field.—*M. D. Vernon* (Cambridge).
2836. Dean, J. S. *Certain relationships of crime and mental disorder*. *Amer. J. ment. Def.*, 1945, 50, 284-290.—*C. N. Cofer* (George Washington).
2837. East, E. R. *Classification reception centers*. *J. crim. Law Criminol.*, 1945, 36, 243-248.—The requisite personnel and functions of classification centers for convicted offenders are outlined, and their advantages for the modern penal system are briefly enumerated.—*L. M. Hanks, Jr.* (Bennington).
2838. Foxe, A. N. *Heredity and crime*. *J. crim. Law Criminol.*, 1945, 36, 11-16.—Along with environmental determinants there also exists strong evidence of an hereditary factor in criminal behavior. Because of the social repercussions of the problem, its submission to scientific investigation is exceedingly difficult. At best, a scientist can contribute bits to unravel the problem's complexities by dropping the idea of opposed principles in heredity and environment.—*L. M. Hanks, Jr.* (Bennington).
2839. Hakeem, M. *Glueck method of parole prediction applied to 1,861 cases of burglars*. *J. crim. Law Criminol.*, 1945, 36, 87-97.—Using the records of persons released for parole, success was determined by a 5-year period, during which the commission of a crime or a violation of the rules of parole constituted a sign of failure or partial failure. Low but significant contingency coefficients revealed that the highest predictability came from the psychiatric prognosis, social type, previous crime record, work record, and type of offender. On the basis of these figures, actuarial tables were constructed to predict probabilities of parole violation.—*L. M. Hanks, Jr.* (Bennington).
2840. Hentig, H. v. *The delinquency of the American Indian*. *J. crim. Law Criminol.*, 1945, 36, 75-84.—Crimes rates are higher for Indians than whites, but these statistics are unreliable because of irregular collection and difficulty of definition of the term Indian. Courts have tended to neglect rather than discriminate against them. The offenses are mainly drunkenness, but assault, theft, and violation of game laws are also present. Here arises no question of racial basis but rather of differing cultural standards and poverty.—*L. M. Hanks, Jr.* (Bennington).
2841. Hernández Quiróz, A. *Atenuación en el homicidio motivado por infidelidad conyugal*. (Ex-tenuation in homicide prompted by conjugal infidelity.) *Criminalia, Méx.*, 1946, 12, 13-40.—The Mexican penal code exculpates from responsibility a married person causing injury or death on surprising the partner in an adulterous situation. From a psychological point of view there is a weakness to the legal insistence on "surprise." Various personality responses are not sufficiently considered. On the other hand, advantage may be taken of the law in psychologically inadequate marriages.—*H. D. Spoerl* (Jeffersonville, Vt.).
2842. Kaplan, L. A. *Behavior problems in an Army Service Forces training center*. *Arch. Neurol. Psychiat.*, Chicago, 1946, 55, 435-437.—Abstract and discussion.
2843. Karpman, B. *From the autobiography of a bandit: toward the psychogenesis of so-called psychopathic behavior*. *J. crim. Law Criminol.*, 1945, 36, 305-325.—The case of a criminal is presented who was diagnosed repeatedly as psychopathic personality. Interpretation of the case reveals psychogenic factors resulting from maternal rejection, feelings of privation, and consequent hostility. Subsequent criminal behavior proceeded from a continued drive derived from the early experience. After brief psychotherapy, the subject was changed from a frequently disciplined prisoner to a model prisoner and was released on parole.—*L. M. Hanks, Jr.* (Bennington).
2844. Mullins, C. *Why crime? Some causes and remedies from the psychological standpoint*. London: Methuen, 1945. Pp. 130 + x. 6s.—Four principal causes of crime are suggested: bad heredity, unwelcome births, parental discord, and illegitimacy. The author discusses the factors underlying these causes and suggests how they might be eliminated. Those who are unfit for the life of the community at large should be detained for an indefinite period in suitable institutions; the sizes of families of some parents should be limited and of others increased; in some cases voluntary sterilization should be encouraged; and the law, particularly as regards divorce, should be reformed. It is the children, potentially good citizens or criminals, whose welfare is seldom considered till most of the damage is done.—*M. D. Vernon* (Cambridge).
2845. Pisculich, R. E. *Estudio psico-social de 100 menores delincuentes*. (Psycho-social study of 100 delinquent minors.) Lima: Imprenta Gil, 1946. Pp. 76.—Histories of 100 cases, aged 7 to 20, were investigated from the points of view of home and school relationships, delinquent actions, mental deficiency, and normality or abnormality of personality. Sample cases are occasionally introduced for illustrative purposes. "The economic aspect is determinative of the predelinquent state." Constitutional psychological anomalies were not in notably greater proportion than for the general population.

Vagrancy and truancy were frequent immediate occasions for delinquent actions; government might be able to control this situation better than it does at present.—*H. D. Spoerl* (Jeffersonville, Vt.).

2846. Reid, J. E. Simulated blood pressure responses in lie-detector tests and a method for their detection. *J. crim. Law Criminol.*, 1945, 36, 201-214.—Since approximately one fifth of the lie-detector runs gave ambiguous results, study of simulated blood pressure change revealed that voluntary muscular contraction could reproduce records of deception. Evidence exists indicating muscular contraction to have obscured the records of a number of cases who subsequently confessed their guilt. To avoid this difficulty, devices have been added to inscribe simultaneously muscular movement records along with the records of blood pressure and pneumograph.—*L. M. Hanks, Jr.* (Bennington).

2847. Rudolf, H. R. Prisons in a democracy. *Survey Mid-Mon.*, 1946, 82, 14.—Instead of attempting "to achieve spiritual ends by physical means," prison officials should proceed from merely attending to the inmate's needs to delving into the causes of his social maladjustment. Various ways for changing the prison into a social laboratory which furnishes practical education for extramural living are suggested. Walkill Prison is mentioned as a model rehabilitation center.—*R. Lassner* (Minn. State Training School).

2848. Sánchez, L. J. *Psiquiatría, responsabilidad y delinquencia.* (Psychiatry, responsibility, and delinquency.) *Criminalia, Méx.*, 1946, 12, 62-80.—The change in criminological outlook presaged by the advance of psychiatry is creating difficult problems for law and society. Apart from the typical prejudices of positivistic criminological theories, increasing understanding of causation tends to suggest that some other basis than that of law may emerge as a means of social control. Meanwhile the science of criminology is itself constantly changed by a changing social order.—*H. D. Spoerl* (Jeffersonville, Vt.).

2849. Wallin, J. E. W. Questions and answers: mental deficiency, psychopathy, and delinquency. *J. crim. Law Criminol.*, 1945, 36, 116-120.—A series of questions are stated on the relation of crime rate to feeble-mindedness, psychopathy, personality maladjustment, and truancy. The answers are given mainly in simple interpretations of current statistics.—*L. M. Hanks, Jr.* (Bennington).

2850. Whitcomb, M. A. A comparison of social and intellectual levels of 100 high-grade adult mental defectives. *Amer. J. ment. Def.*, 1945, 50, 257-262.—The revised Stanford-Binet, Form M, the Wechsler-Bellevue Scale, and the Vineland Social Maturity Scale were administered to 100 high-grade girls who were institutionalized in a home for defectives. Major interest was in the performances of two groups: (a) 49 who could be considered for parole and (b) 32 whose delinquency prevented their consideration for parole. Small differences were found in the average test performances of these

groups, and it is concluded that "the girl's moral or emotional adjustment . . . serves as the brake or the accelerator of her progress."—*C. N. Cofer* (George Washington).

[See also abstracts 2617, 2776, 2871.]

INDUSTRIAL AND PERSONNEL PROBLEMS

2851. Alvis, B. Y. Defective vision in industry. *Industr. Med.*, 1944, 13, 537-539.

2852. Amiss, J. M., & Sherman, E. *New careers in industry.* New York: Whittlesey House, McGraw-Hill, 1946. Pp. xxv + 227. \$2.50.—Written primarily for purposes of vocational guidance, this book describes industrial careers (not mere jobs) in an informal style. Job duties, wages, working conditions, personal qualifications, and the place of each specific job in the total pattern of industry are given for most of the skilled shop and office jobs in the automotive industry. The tone throughout is that of promoting industrial relations, and some specific recommendations are made in that field. Many examples and illustrations are included.—*H. F. Rothe* (Stevenson, Jordan & Harrison, Inc.).

2853. Biram, J. H., & Barton, P. N. Vision and accident repeaters in one industry. *Industr. Med.*, 1944, 13, 683-686.

2854. Bixler, H. R. Emotional factors in safety. *Personnel J.*, 1946, 25, 9-14.—*M. B. Mitchell* (Klein Institute).

2855. Brandt, H. F. Your eyes reveal the secrets of your interests. *Proc. Ia Acad. Sci.*, 1944, 51, 361-366.—A bidimensional eye-camera was used to record the relative time spent in looking at pictures. Fifty subjects were tested on a two-page spread of two columns each, one page containing pictures of men, the other of women. It was found that significantly more time was spent looking at pictures on the inside positions of the lay-out than on the outside positions. Preference was shown for the outer left-hand column over the outer right-hand column. Men spent more time looking at pictures of women than at pictures of men, while women spent approximately an equal amount of time on the two sexes. Seventy-five men and 75 women observed a page each of men's and women's shoes. Men spent significantly more time on articles related to their needs. Women spent relatively more time on masculine articles than men did on articles generally used by women.—*B. Wellman* (Iowa).

2856. Carlin, H. L. Amputee rehabilitation: XIV. Instruction in automobile driving. *Nav. med. Bull. Suppl., Wash.*, 1946, March, 176-182.—*R. O. Rouse* (Army Air Forces).

2857. Caron, M., Daumazon, G., & Leculier, P. Utilisation d'épreuves psychotechniques dans la sélection du personnel infirmier. (Use of psychotechnical tests in the selection of hospital personnel.) *Ann. méd.-psychol.*, 1942, 100, 58-61.

2858. Coyer, E. J. A description of industrial counseling. *Compass*, 1944, 25, 16-19.—The efforts

of the industrial counselor have reduced personnel turnover and absenteeism in the RCA Victor Division of Indianapolis. Brief case studies of the work of the counselor and the results obtained are given. Industrial counseling is proving its worth in terms not only of human values but also of economy and cost.—*N. M. Locke* (Social Security Bd.).

2859. **Eisendorfer, A., & Bergmann, M. S.** The factor of maturity in officer selection. *Psychiatry*, 1946, 9, 73-79.—A systematic study of 100 OCS candidates by psychiatric examination and by Rorschach and Thematic Apperception tests discloses that leadership consists of emotional maturity and a desire to lead and that good leadership is based upon a highly developed sense of reality. However, a wish to lead may be a neurotic overcompensation, and four out of five applicants were found unsatisfactory in their superego, ego, and id interrelationships.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirmary).

2860. **Flanagan, J. C., & Fitts, P. M., Jr.** Psychological testing program for the selection and classification of air crew officers. *Air Surg. Bull.*, 1944, 1, No. 6, 1-5.—The Aviation Psychology Program has developed a qualifying examination to replace the original educational requirement, and an aptitude testing program which provides for classifying and rating men according to their probable success in pilot, navigator, or bombardier training. A preliminary job analysis preceded devising of tests which were designed to measure specific aptitudes, were easy to administer, and permitted perfectly objective scoring. Significance of individual test items was constantly checked by statistical analysis, and revisions and new weightings were introduced as indicated. Minimal acceptable scores were finally established for the different Stanine ratings for pilots, navigators, and bombardiers when analysis had demonstrated the reliability of the weighted scores in predicting success.—*M. R. Stoll* (Amer. Opt. Co.).

2861. **Foster, J. H.** Selection of firefighters in New Orleans. *Louisiana munic. Rev.*, 1944, 7, 9-10; 24-25.—In a discussion of the methods and procedures used in civil service examinations for fireman, lieutenant, and captain in the New Orleans Fire Department, the construction of the written test, tests of strength and agility, and other components of the examination are described, as well as the determination of the candidate's final score.—*N. M. Locke* (Social Security Bd.).

2862. **Gardner, W. H.** Injuries to hearing in industry. *Industr. Med.*, 1944, 13, 676-679.

2863. **Glick, H. N.** Defective hearing in industry. *Industr. Med.*, 1944, 13, 539.

2864. **Halsey, M.** Accident prevention vs. accident causes. *J. crim. Law Criminol.*, 1946, 36, 349-361.—The return of gasoline consumption by motorists who are using inferior equipment means an immediate rise in number of accidents, particularly during the first year after release of gasoline. These possibilities cannot be immediately met by enforce-

ment measures quickly enough because of training and budgetary difficulties in the employment of new personnel. Hence each enforcement agency must make its own plan to increase the effectiveness of the traffic policemen per hour of work and at the same time to conduct safety education measures chiefly through greater personal contact between policeman and motorist.—*L. M. Hanks, Jr.* (Bennington).

2865. **Harrell, T. W., & Harrell, M. S.** Army General Classification Test scores for civilian occupations. *Educ. psychol. Measmt.*, 1945, 5, 229-239.—Scores of 18,782 white enlisted men of the Army Air Forces Air Service Command on the GCT (Army General Classification Test) distributed according to their previous occupations are studied. Means, medians, and standard deviations are given for 74 occupations for which sample sizes were large enough to be significant. Comparisons between occupations are made.—*S. Wapner* (Rochester).

2866. **Lummis, C.** The relation of school attendance to employment records, army conduct and performance in tests. *Brit. J. educ. Psychol.*, 1946, 16, 13-19.—Regularity of previous school attendance of 1,000 soldiers was compared with civilian employment record, army conduct rating, and performance on four selection tests. The group with irregular school attendance records showed markedly greater percentages of men in the lowest 30% of test scores and in the lowest grade for army conduct and steadiness of civilian employment. Test results most closely correlated with poor school attendance were verbal knowledge and arithmetic, while mechanical principles showed the smallest correlation. Among the irregular attendants, the subgroup classified as truants had the largest percentage of low conduct records and civil employment ratings.—*R. C. Strassburger* (St. Joseph's College for Women).

2867. **Mandell, M.** Testing for administrative and supervisory positions. *Educ. psychol. Measmt.*, 1945, 5, 217-228.—The relationship between testing methods and administrative and supervisory performance is reviewed. There is evidence that tests of mental ability and interest inventories are useful. Personality inventories contribute only slightly to good selection. Validation of the oral interview ratings, training course ratings, and biographical data should be explored. Job analysis to identify homogeneous subgroups of administrative and supervisory positions is needed.—*S. Wapner* (Rochester).

2868. **Marzi, A.** Cos'è la psicologia del lavoro? (What is the psychology of work?) *Maglio, Torino*, 1943. Pp. 4.—*L. Canestrelli* (Rome).

2869. **Marzi, A.** Finalità ed attività del "Centro di studi del lavoro" di Torino. (Purposes and activity of the Center of Studies on Work at Turin.) *Maglio, Torino*, 1943. Pp. 59.—After a general consideration of the problem of vocational guidance with respect to the program of the Center (which began its work in 1935), illustrations are given of the scientific and methodological directives which have been adopted by the Confederation of Industrial Workers for the psychotechnical examination of young ap-

prentices in relation to vocational guidance, rehabilitation, etc. The article includes annual reports, statistical summaries of the work done at the Center, and bibliographies.—*L. Canestrelli* (Rome).

2870. Mead, M. Cultural aspects of women's vocational problems in post World War II. *J. consult. Psychol.*, 1946, 10, 23-28.—Those who are interested in the utilization of women in a productive society should concentrate on altering the sex-typed expectation of both boys and girls in regard to occupation. The deviant women should not give the style to the job because it makes it more difficult for other women to accept the job as fitted for themselves. We must accept the fact that no woman will do as well as a man of equal ability, to begin with, in an occupation in which woman has never worked because she will lack a basic orientation towards that activity.—*S. G. Dulsky* (Personnel Inst., Chicago).

2871. Mingle, G. Police personnel evaluation and development. *J. crim. Law Criminol.*, 1945, 36, 277-289.—A system of trait rating for training and maintaining standards for policemen is described. Thirty-one factors are circularized among the force as optimal standards. After having been rated by his superiors, each man knows his own position in terms of the standard. The quarterly ratings are used as a basis for correction as well as for promotion and need for special training.—*L. M. Hanks, Jr.* (Bennington).

2872. Minton, J. Vision and the selection of personnel in industry. *Sight-Saving Rev.*, 1945, 15, 67.

2873. Morrow, R. L. Time study and motion economy with procedures for methods improvement. New York: Ronald, 1946. Pp. 355. \$5.00.

2874. Newman, S. H., Bobbitt, J. M., & Cameron, D. C. The reliability of the interview method in an officer candidate evaluation program. *Amer. Psychologist*, 1946, 1, 103-109.—Each of 399 Coast Guard Reserve officer candidates and 137 SPAR officer candidates was interviewed independently by one of two psychologists and by a psychiatrist. The bases of evaluation were complex and covered (1) ability to pass the academic training, (2) the ability to withstand psychological pressures and tensions of the training program, and (3) ability to withstand the trauma of combat and the demands of service life. The interview rating was quantified on a 13-point scale. The product-moment correlations of the psychiatrist's evaluations and those of the psychologists were $.830 \pm .011$ for the Reserve officer candidates and $.850 \pm .016$ for the SPAR officer candidates. The data are analyzed also in terms of frequency of occurrence of different degrees of agreement and disagreement by the two interviewers and in terms of the locus on the 13-point scale. The factors influencing interview reliability are discussed.—*N. R. Bartlett* (Johns Hopkins).

2875. Partington, J. E., & Bryant, T. R. The personnel consultant and psychological testing at Armed Forces Induction Stations. *Amer. Psychologist*, 1946, 1, 110-112.—"This paper is a brief review

of the psychological testing carried on by the Personnel Consultants and their staffs in Armed Forces Induction Stations during the war."—*N. R. Bartlett* (Johns Hopkins).

2876. Research Division, Office of the Air Surgeon. Prediction of aptitude for learning to fly. *Air Surg. Bull.*, 1944, 1, No. 4, 8.—Selected applicants for flying training are given a psychological aptitude examination which includes measures of proficiency, judgment, perceptual speed, alertness, interest in aviation, and co-ordination. Weighted averages of certain of these tests yield a Stanine score (standard nine) of from 1 to 9. Data on 95,607 cadets sent into pilot training show that the Stanine score is a reliable indicator of success in primary pilot training. Similarly, data on 38,946 cadets demonstrated that the scores indicate probability of successful completion of basic training.—*M. R. Stoll* (Amer. Opt. Co.).

2877. Silverman, B. Mental adjustments to industrial situations. *Canad. med. Ass. J.*, 1945, 52, 26-31.

2878. Spreng, H. Die Beziehungen der angewandten Psychologie (Psychotechnik) zur seelischen Hygiene. (Relationships between applied psychology and mental hygiene.) *Schweiz. Z. Psychol. Anwend.*, 1942, 1, 80-85.—Applied psychology includes the two areas of fitting the person to the occupation and fitting the occupation to the person. From the point of view of the psychologist, there are a number of aspects to the problem of fitting the person to the occupation: considering promotion and school assignments in light of results from tests of abilities, school guidance, occupational guidance, occupational selection, vocational training methods, and special courses for supervisory personnel. In fitting the occupation to the person, the psychologist is concerned with such problems as fitting work implements to the physical and psychic constitution of the person, arrangement of the place of work to fit the feelings of the person, avoidance of accidents, and related questions.—*R. B. Ammons* (Denver).

2879. Tecoz, H. F. Le rôle du médecin en orientation professionnelle; ce que le psychologue en attend. (The role of the doctor in professional orientation; what the psychologist expects.) *Schweiz. med. Wschr.*, 1943, 73, 913-917.

2880. Toops, H. A. Some concepts of job families and their importance in placement. *Educ. psychol. Measmt.*, 1945, 5, 195-216.—The criteria of classification of both jobs and people "must be unique, minimal in number, and as objective, quantitative and practical as possible." Techniques of developing job families are reviewed and evaluated. The writer concludes "that the best elements of all the methods likely will yield a better result than blind adherence to any one alone."—*S. Wapner* (Rochester).

2881. U. S. Employment Service. Selective placement for the handicapped; information for the placement of disabled applicants in competitive employment. (Rev. ed.) Washington, D. C.: Government Printing Office, 1945. Pp. 142. 15c.

2882. Viteles, M. S. *Psychology in aviation. Gen. Mag. hist. Chron., Univ. Pa.*, 1946, 48, 155-167.—A brief review is given of the problems in the field, with particular reference to the studies made by the Committee on Selection and Training of Aircraft Pilots, National Research Council.—W. S. Hunter (Brown).

[See also abstracts 2598, 2671, 2735, 2754, 2777, 2779, 2784, 2789, 2842.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

2883. Abel, T. M. *The relationship between academic success and personality organization among subnormal girls. Amer. J. ment. Def.*, 1945, 50, 251-256.—Fifteen pairs of white, moron girls were used in this study. The members of each pair were matched for Stanford-Binet (1916) IQ and for CA but differed considerably in educational achievement. The high educational group performed better than the low group on the Arthur Point Performance Scale, and the superiority was especially marked on the Healy P. C. I. and the Porteus Maze. The high educational group showed better personality integration on the Rorschach test than did the low group. The latter group was also found to have a greater incidence of familial and neurological handicap than the high group.—C. N. Cofer (George Washington).

2884. Ai, J. W. *Correlations of intelligence, achievements and physical conditions of elementary school children. Chin. J. educ. Psychol. Engl. Abstr.*, 1945, 1, No. 4, 1-3.—Group intelligence tests (Pintner, revised and translated) were given to 3,973 fifth- and sixth-grade pupils in Chungking. Correlations between intelligence and school achievement varied from .47 for arithmetic computation to .75 for Chinese and general knowledge. Physical examination included teeth, eyes, tonsils, muscles, and subcutaneous fat. No significant correlation was found between the results of the physical examination and either intelligence or achievement.—M. Murphy (Pennsylvania).

2885. Ai, J. W. *Sex differences in school achievements. Chin. J. educ. Psychol. Engl. Abstr.*, 1945, 1, No. 4, 9-13.—Achievement tests given to elementary school pupils in Chungking showed no sex difference in Chinese and arithmetic computation, a difference in arithmetic reasoning of doubtful significance, and a difference in favor of the boys in general knowledge, social studies, and nature study.—M. Murphy (Pennsylvania).

2886. Baruch, D. W. *Description of a project in group therapy. J. consult. Psychol.*, 1945, 9, 271-280.—The author held 12 sessions of therapeutic group discussion as part of a college course in techniques of therapy. Orientation was to a type of group discussion characterized above all by permissiveness and acceptance. Twenty-three members participated. Written and verbal statements made by the members indicated (1) an increased under-

standing of self and gains in insight and in ability to face problems, (2) a sense of increased ease and a reduction of guilt, hostility, and feelings of being different, and (3) an understanding of the value of group therapy and clarification of techniques. All but two of the members received help from the therapeutic experience.—S. G. Dulsky (Personnel Inst., Chicago).

2887. Bradford, E. J. G. *Selection for technical education. Part I. Brit. J. educ. Psychol.*, 1946, 16, 20-31.—This paper reports the results of two independent investigations aimed to improve methods of selecting pupils for secondary-school technical education. One hundred five entering students submitted to a testing program which comprised an individual test battery of the performance type and a group test emphasizing verbal, spatial, and perceptual factors. In another independent study, a group of adult male clients of a neurosis center, 105 in number, completed a battery of seven individual tests. Correlations obtained from the technical school group and from the hospital group were subjected to analysis by Burt's summation method, and general factor and bi-polar saturations were calculated.—R. C. Strassburger (St. Joseph's College for Women).

2888. Bratton, D. *Classroom guidance of pupils exhibiting behavior problems. Elem. Sch. J.*, 1945, 45, 286-292.

2889. Brown, L., Lauer, A. R., & Uhl, E. *A study of the improvement of reading rate and comprehension. Proc. 1a Acad. Sci.*, 1944, 51, 367-370.—A study of two experimental groups of students in reading improvement classes of 64 and 29 respectively shows evidence of improvement in all cases. It was found necessary to equate speed and comprehension when making evaluations of reading improvement to obtain consistent results. The efficiency index (speed \times per cent comprehension) is a usable concept and should be employed in any evaluation of reading improvement. A highly reliable difference was obtained in every group given remedial treatment where this index of improvement was used. Improvements of from 30% to 35% may be expected in 5 weeks of class work in remedial reading as described in this study. Individual improvements may run as high as 250%.—B. Wellman (Iowa).

2890. Cole, L., & Ferguson, J. M. *Students' guide to efficient study.* (3rd ed.) New York: Rinehart, 1946. Pp. 70. \$0.50.—The same general principle, used in the previous edition, of building the manual around rules for efficient study is again used in the present edition. The rules pertain to planning, concentrating, reading, studying, problem solving, note taking, memorizing, writing reports, reviewing, taking examinations, and developing general habits.—L. Long (City College of New York).

2891. Courtney, D., Bucknam, M. E., & Durrell, D. *Multiple choice recall versus oral and written recall. J. educ. Res.*, 1946, 39, 458-461.—Two studies are reported. In the first, multiple-choice recall

was compared with written recall of material read silently by 9th-grade pupils; in the second, material read by 5th-grade pupils was recalled by written recall or oral recall and then by the multiple-choice method. In both studies it was discovered that multiple-choice recall is considerably easier than unaided recall, whether oral or written. These results indicate the necessity of employing unaided recall in the analysis of reading ability. Disparity in achievement on the two types of recall may show why some pupils fail in verbal subjects even though reading tests of the multiple-choice type show good reading comprehension.—*M. Murphy* (Pennsylvania).

2892. Courtney, E. C. Clinical analysis of a specific case in remedial reading. *Proc. Ia Acad. Sci.*, 1944, 51, 371-375.—This study reports an analysis of an individual case in remedial reading which showed poor habits acquired earlier in his school life. The subject's visual acuity, intelligence, and reading ability were sufficiently high to be considered of secondary importance in his reading difficulties. It was shown that the subject made improvement in rate, comprehension, and enjoyment, and it is suggested that more complete analysis of cases of reading disability would greatly aid teachers in developing skill in handling and evaluating such cases.—*B. Wellman* (Iowa).

2893. Coxe, W. W. Planning and administering educational research. *J. educ. Res.*, 1946, 39, 368-379.—When research is carried on by a group of workers, and this is more and more frequently the case, problems of organization and procedure arise which do not occur in individual research. The author discusses the steps in conducting a research study, the selection of a staff, and the administration of the staff on the basis of actual experience. Five kinds of training should be represented in every educational research staff: psychology, statistics, sociology and economics, school administration and finance, and curriculum. Emphasis should be placed upon clear division of responsibility, co-operation on each study, and opportunity for individual initiative and effort.—*M. Murphy* (Pennsylvania).

2894. Estensen, E. V. McGuffey—a statistical analysis. *J. educ. Res.*, 1946, 39, 445-457.—The total number of selections in the McGuffey Readers from Primer to Sixth Reader were analyzed to determine the frequency of selections containing each of the following types of motivation: economic, nationalistic, militaristic, international, and religious. These frequencies were then compared with corresponding frequencies in widely used readers published during the 1930's. There was no difference in the frequency of economic motivation. Modern readers are paradoxically both more nationalistic and more international in motivation. They are less militaristic and less religious in motivation than the McGuffey Readers. The difference in religious motivation is by far the greatest.—*M. Murphy* (Pennsylvania).

2895. Ewing, I. R. Lip reading and hearing aids. (2nd ed.) Manchester, Eng.: Manchester University

Press, 1944. Pp. vi + 73. 4s. 6d.—The second edition of this book is based upon further knowledge about lip reading and includes additional and modified treatment of its development, use, and scope. There is also information about the use of hearing aids and how their use can be combined with lip reading. Some of the problems underlying the adjustment to deafness are analyzed. The methods described are suitable for adults and not for children.—*M. D. Vernon* (Cambridge).

2896. Fischer, R. P., & Hinshaw, R. P. The growth of student interest in psychology. *Amer. Psychologist*, 1946, 1, 116-118.—"This study reports the growth of student interest in psychology as a subject of major concentration by undergraduate students in the College of Liberal Arts and Sciences at the University of Illinois from 1925 to 1944 inclusively. One percent of the students elected psychology as a major in 1925, and thirteen percent in 1944. The data might be used as an aid in revising curricula or as a guide to an intelligent budgetary policy."—*N. R. Bartlett* (Johns Hopkins).

2897. Fowler, E. P., Jr. The deafened school child in Nebraska. *Neb. St. med. J.*, 1946, 31, 91-93.

2898. Fowler, N. Turn about's fair play! *J. higher Educ.*, 1946, 17, 131-135; 170.—A program of student rating of instructors at Morehead (Kentucky) State Teachers College is described. Students rated their instructors on an 18-item multiple-choice Teacher Rating Form. The program was administered by the faculty, not by the administration. The primary purpose was to provide individual members of the faculty with information concerning student opinion. The instructors also rated themselves, and these ratings differed considerably from the student ratings. In general the students rated their instructors higher than the instructors rated themselves. The students rated instructors highest on "Personal Appearance" and lowest on "Ability to Provoke Thought"; the faculty rated itself highest on "Sincerity" and lowest on "Assignments" and "Ability to Provoke Thought." Both students and instructors believed the rating program served a good purpose, and it is planned to have similar ratings at least once a year for a period of three years.—*M. Murphy* (Pennsylvania).

2899. Gray, W. S. Summary of reading investigations, July 1, 1944, to June 30, 1945. *J. educ. Res.*, 1946, 39, 401-433.—The author gives his annual summary, with an annotated bibliography of 70 titles.—*M. Murphy* (Pennsylvania).

2900. Holmes, J. L. Scholastic progress of students entering the Iowa State College with low high-school averages. *Proc. Ia Acad. Sci.*, 1944, 51, 383-387.—In the fall quarters of 1939 and 1940, students entering the Iowa State College directly from high school with averages below 1.51 were grouped together in a "pre-admission guidance" program. They were given tests of scholastic ability, silent reading skills, English and mathematics achievement. They were not permitted to register for a full normal load nor for freshman mathematics and chemistry.

A special counselor devoted 20 hours a week to individual counseling and met with the group in a combined study methods and remedial reading course. In spite of these aids, their progress in college was decidedly unsatisfactory. Ninety per cent of the group of 96 students made scores on the American Council on Education Psychological Examination lower than the average new entrant; 80% made less than 1.50 in their first quarter of college; and only two students made cumulative averages of 2.00 or better. Seventy per cent terminated their college work by action of the Scholarship Committee.—*B. Wellman* (Iowa).

2901. Husband, J. D. A technique for the evaluation of growth in certain affective phases of reading among high-school pupils. *J. educ. Res.*, 1945, 39, 265-271.—Two instruments were used: the first comprised 20 paired selections of poetry, one characterized by precision and density of expression and meaning, the other by the opposites of these qualities; the second comprised 36 selections of prose grouped in units of three representing three levels in the degree to which the selection required preciseness in interpretation. It was believed that the demand for precision creates a negative response which diminishes with increasing reading maturity. These tests were then administered to 170 high-school pupils of varying levels of intelligence, including an unusual percentage of cases of limited ability. When the pupils were divided into four groups on the basis of intelligence, there was found, in going from the lowest to the highest group, a steady increase in preference for the precise, definite material as against the ambiguous material both in poetry and prose.—*M. Murphy* (Pennsylvania).

2902. Klein, P. E., & Moffitt, R. E. Counseling techniques in adult education. New York: McGraw-Hill, 1946. Pp. xi + 185. \$2.00.—This book is intended as a guide and source book for teachers, administrators, and counselors in adult-education programs. Three major areas in counseling are covered: educational, personal, and occupational. The fundamental belief of the authors that, in actual practice, every member of the educational staff is more or less a counselor has determined in a large measure the material presented, as well as the method of presentation.—*L. Long* (City College of New York).

2903. Leary, B. E. What does research say about reading? *J. educ. Res.*, 1946, 39, 434-444.—The author believes that it "probably says too much too often." The meaning of the results of research is briefly indicated in such problems as what people read, the influence of movies and radio on reading, reading readiness, the value of phonics, oral reading, development of speed, testing reading skill, and special methods in overcoming difficulties.—*M. Murphy* (Pennsylvania).

2904. Martens, E. H. Curriculum adjustments for gifted children. *U. S. Off. Educ. Bull.*, 1946, No. 1. Pp. 82.—This bulletin discusses the identification and treatment of gifted children. Children

who have exceptionally high mental ability and those who are talented in a specific direction, such as art or music, are considered within the scope of the bulletin. The first half of the bulletin is a summary of the basic principles as discussed in a conference held in Washington. The second half describes actual programs in operation.—*C. P. Froehlich* (U. S. Off. Educ.).

2905. Marzolf, S. S., & Larsen, A. H. Statistical interpretation of symptoms illustrated with a factor analysis of problem check list items. *Educ. psychol. Measmt.*, 1945, 5, 285-294.—The 10 most frequently underlined items of the Mooney Problem Check List given to 205 upper classmen in the Illinois State Normal School are studied by the technique of factor analysis. A statistical analysis of the concept of syndrome is given. "A syndrome must be considered as a central tendency concept rather than an invariant conjunction of symptoms."—*S. Wapner* (Rochester).

2906. Olson, H. F. Evaluating growth in language ability. *J. educ. Res.*, 1945, 39, 241-253.—The language program in the Seattle Public Schools from kindergarten to grade 12 is described. Tests were devised to evaluate growth in the broader phases of language, such as critical thinking, vocabulary, organization of material, and judgment of excellence in writing. Work was concentrated upon grades 9 to 12. These tests are called instructional tests to distinguish them from standardized tests.—*M. Murphy* (Pennsylvania).

2907. Pauls, M. D., Haskins, H. L., & Hardy, W. G. Hearing and speech rehabilitation: VIII. Speech reading, auditory training, and speech correction in the re-education program. *Nav. med. Bull. Suppl.*, Wash., 1946, March, 232-248.—*R. O. Rouse* (Army Air Forces).

2908. Philpott, S. J. F. Cinema Commission of Inquiry experiment; a discussion of results and experimental methods. *Brit. J. educ. Psychol.*, 1946, 16, 32-38.—Five equated groups of children completed a series of weekly lessons using different methods, namely (1) film alone, (2) film with commentary, (3) slides alone, (4) slides with commentary, and (5) oral lesson without visual aids. To secure a strict comparison of methods, each group did one lesson by each of the methods. Percentages of gain or loss per method are expressed in relation to the "film alone" score which is taken as 100, and these are found to be small. Analysis of the essays written for the several methods reveals qualitative differences which are significant, e.g., although film and oral lesson scores are nearly identical in the percentages, the essays show wide variation in internal structure. Since factors that change over the course of an experimental series may affect the results, the experimental design is such as to insure that all five teaching methods are equally subjected to these progressively changing factors.—*R. C. Strassburger* (St. Joseph's College for Women).

2909. Pugh, G. S. Appraisal of silent reading abilities of acoustically handicapped children. *Volta*

Rev., 1946, 48, 197-198; 254.—H. R. Myklebust (N. J. School for the Deaf).

2910. Russell, D. H. Inter-class grouping for reading instruction in the intermediate grades. *J. educ. Res.*, 1946, 39, 462-470.—In the San Francisco Public Schools a system of grouping for reading instruction, locally known as "circling," is used in grades 4, 5, and 6. Pupils in these grades may change rooms and teachers during reading periods going into a higher or a lower grade according to ability. The present study evaluates this attempt to provide for individual differences. The achievement of a group of 248 pupils who circled for two years is compared with an equal number who did not circle. At the low 4th grade the two groups were approximately equal in chronological age, mental age, and reading achievement. Standardized tests showed no reliable difference between the two groups at the end of the two-year period. When questioned, principals who had experience with "circling" listed about as many disadvantages as advantages for the system.—M. Murphy (Pennsylvania).

2911. Schonell, F. J. *The psychology and teaching of reading*. Edinburgh: Oliver & Boyd, 1945. Pp. 128. 6s.—This book describes briefly, for parents and teachers, the following topics: psychological factors upon which reading is based; the necessity of sufficient maturity in the child, as shown by his vocabulary and interests before he begins to read; the provision of training preparatory to reading; the best methods and the best ways of applying them at various stages in teaching reading; important points in the content and vocabulary of children's readers; and the organizing of a continuous program of reading in infant and junior schools. In appendices are given a graded reading test and the method of applying and scoring it, and suggestions for preparing reading material for normal and backward readers.—M. D. Vernon (Cambridge).

2912. Smith, H. L., & Eaton, M. T. Analysis of the proficiency in silent reading of 15,206 sixth grade pupils in 648 schools in Indiana. *Bull. Sch. Educ. Ind. Univ.*, 1945, 21, No. 6. Pp. 52.—The Iowa Silent Reading Tests, New Edition, Elementary Test (Revised) Form BM were given. Among the findings were great individual differences in reading proficiency, little consideration for reading proficiency in grade promotion, no significant differences as regards city or township schools, and no marked differences in reading proficiency in relation to the methods of teaching found in the schools.—D. T. Herman (Indiana).

2913. Stoke, S. M. Undergraduate training for graduate students of psychology. *Amer. Psychologist*, 1946, 1, 113-115.—The writer asked the chairmen of nine different psychology departments for comments on the undergraduate training of prospective graduate students. This paper is an analysis of the trends in the replies.—N. R. Bartlett (Johns Hopkins).

2914. Stückerberger, A. *Der Einfluss des Kriegesgeschehens auf das Geistesleben des Schulkindes*.

(The influence of the war on the mental life of the school child.) Zürich: Gotthelf, 1943. Pp. 32.

2915. Watson, G. Psychology in the emerging education. *J. consult. Psychol.*, 1946, 10, 57-62.—Nursery schools, institutions for education beyond the high school (technical institutes and junior colleges), and adult education centers will want more psychological service, both for research and for practical guidance of individual teachers and pupils. The changing character of education will demand the cultivation of new skills by those who work as educational psychologists or school psychologists. "Diagnosis and remedial activity will still be needed, but it will be concerned with new objectives and with social as well as individual achievement."—S. G. Dulsky (Personnel Inst., Chicago).

2916. Wesman, A. G. A study of transfer of training from high-school subjects to intelligence. *J. educ. Res.*, 1945, 39, 254-264.—Students in the Fourth Term (upper 10th grade) and the Fifth Term (lower 11th grade) were tested in September and in May of the school year with the I.E.R. tests of Generalization and Organization and Selective and Relational Thinking and with school achievement tests. Application of "course pattern analysis" revealed no superiority of any one school subject over any of the others studied with regard to contribution to mental growth as measured by intelligence test scores. Students who took more courses had greater gains in intelligence test scores than those who took fewer courses. This is interpreted as an indication that the brighter students have the greater gains. There was little correlation between gains in achievement and gains in intelligence, indicating that little transfer occurred. The correlation between achievement test scores and intelligence test scores tended to decrease from initial to final testing. Considerable inconsistency was found when data from one grade were compared with data from the other grade, indicating that care must be exercised in generalizing from the results of a single classroom experiment. In general, direct training in mental processes is preferable to dependence upon transfer from school subjects.—M. Murphy (Pennsylvania).

[See also abstracts 2641, 2654, 2866, 2870, 2935.]

MENTAL TESTS

2917. Benton, A. L. A visual retention test for clinical use. *Arch. Neurol. Psychiat.*, Chicago, 1945, 54, 212-216.—"A brief test of visual retentive capacity, available in two equivalent forms, has been developed for use in the mental examination of patients as a supplement to the auditory vocal digit span test. The test involves sensorimotor components which are different from those involved in performance on the digit span test; the material to be retained is of a nonsymbolic nature, and performance on the test is relatively insensitive to emotional and tensional influences. The normative data indicate a close relationship between the visual retention

test score and the level of general intelligence."—*K. S. Wagoner* (DePauw).

2918. Goodenough, F. L. The measurement of mental growth in childhood. In *Carmichael, L., Manual of child psychology*. New York: Wiley, 1946. Pp. 450-475.—Major sections of this chapter are concerned with historical orientation and the present status of mental testing, the nature and organization of intelligence, the quantification of intellectual performance, mental growth curves, the prediction of later status from earlier status, the relationship of intelligence test standing to other factors, and the modifiability of intelligence. "... more emphasis has intentionally been placed upon the inadequacies and imperfections of our present methods of mental measurement than upon their positive values." The errors of regarding an IQ as a fixed measure and of regarding every change in IQ as a "real" change in mental level are criticized. There is "an encouraging shift from the wholesale production of new and half-tried testing devices to the critical examination of the significance and accuracy of those already in use." 2½-page bibliography.—*L. J. Stone* (Vassar).

2919. L'Archeveque, P. Raw scores and intelligence quotients. *Bull. Canad. psychol. Ass.*, 1946, 6, 9.—Abstract.

2920. Leite da Costa, M. I. The Ozeretzky tests: method, value and results (Portuguese adaptation). (Trans. by E. J. Fosa.) *Train. Sch. Bull.*, 1946, 43, 1-12.—The Ozeretzky scale, first published in Russian in 1923, is a year-scale of tests of motor maturation for measuring genetic levels of motor efficiency. It may be applied to testing both groups and individuals, although the present report discusses only individual application. The scale consists of six types of tests for each age: general static co-ordination, dynamic co-ordination of the hands, general dynamic co-ordination, motor speed, simultaneous voluntary movements, and synkinesia. The equipment needed to administer the scale is listed and described. The tests for the 4- and 5-year levels are described. The remaining levels are to be published in subsequent issues of the *Bulletin*. There is a preface by E. A. Doll in which the importance of this type of scale, both historically and clinically, is stressed. Methodological difficulties of procedure and standardization are noted.—*S. B. Sarason* (Southbury Training School, Conn.).

2921. Lindberg, B. J. Om intelligensbestämning. (The determination of intelligence.) *Nord. Med.*, 1944, 22, 846-864.—Physicians having occasion to check on the intelligence of patients should understand the scientific derivation of the concept of mental age. The meaning of mental age is frequently misinterpreted because taken too literally. In medical practice where the rating of adults is frequently needed, the point-scale procedure is superior to the largely unsuitable Binet test. In Sweden, Wåhlén's point-scale test has proved particularly useful. A brief history of mental testing is given.—*H. D. Spoerl* (Jeffersonville, Vt.).

2922. Lindberg, B. J. Intelligensbestämning enligt ((Point scale)) och Wåhlén's metod. (Determination of intelligence by the point scale and Wåhlén's method.) *Tidskr. Psykol. Ped.*, [1943]. Pp. 32.—An analysis is given of the use of the point scale of Yerkes, Bridges, and Hardwick, and of Wåhlén's revision, with 1,000 cases. Correlation of the two measures was .88. There was some inversion at certain chronological ages, but the two methods were clearly homogeneous. The present explanation is intended to accompany a revised Swedish version of the point-scale test.—*H. D. Spoerl* (Jeffersonville, Vt.).

2923. Mayman, M. An analysis of scatter in intelligence test results: a review of the literature. *Trans. Kans. Acad. Sci.*, 1946, 48, 429-444.—Attempts of clinical psychologists to discover relations between mental illness and the unevenness of attainment on different kinds of items in an intelligence test are reviewed with reference to the Stanford-Binet, inter-test comparisons, and the Wechsler-Bellevue. "With the use of . . . [the Wechsler-Bellevue], with the aid of new and more precise methods of analysis, and with the development of sub-test rationales, the value of scatter analysis for the clinical psychologist has been demonstrated." 61-item bibliography plus a listing of major bibliographical sources.—*W. A. Varvel* (Texas A & M College).

2924. Strother, C. R. The performance of psychopaths on the Wechsler-Bellevue Test. *Proc. 1st Acad. Sci.*, 1944, 51, 397-400.—The Wechsler-Bellevue scores of a group of 14 adolescent psychopaths were analyzed to determine whether the test performance of this group corresponds to the pattern outlined by Wechsler as characteristic of psychopathic personality. Out of the eight signs suggested by Wechsler (performance IQ higher than verbal IQ, high score on object assembly test, high information score, low arithmetic score, low similarities score, high score on picture arrangement, the sum of block design and picture completion scores lower than the sum of picture arrangement and object assembly scores, and moderate inter-test variability), only one—a relatively poor arithmetic score—occurred in a majority of the subjects. The results indicate that no one of Wechsler's signs appears with sufficient consistency to be considered reliable for purposes of differential diagnosis.—*B. Wellman* (Iowa).

2925. Wittenborn, J. R. Mechanical ability, its nature and measurement. I. An analysis of the variables employed in the preliminary Minnesota experiment. *Educ. psychol. Measmt.*, 1945, 5, 241-260.—The scores of 26 tests which were administered to 217 middle-class boys, enrolled in shop courses, were subjected to a factorial analysis. Age was included as another variable. The study yielded six meaningful definitive factors: spatial visualization, stereotyped movement, scholastic ability, manual dexterity, perceptual speed, and steadiness.—*S. Wapner* (Rochester).

2926. Wittenborn, J. R. **Mechanical ability, its nature and measurement. II. Manual dexterity.** *Educ. psychol. Measmt.*, 1945, 5, 395-409.—On the basis of factorial analyses of the Minnesota data and the examination of data of other studies of mechanical ability, it is apparent that a complete assay of an individual's potentialities for all types of mechanical or manual work would call for measurement of at least the following attributes: scholastic ability, spatial visualization, perceptual speed, manual dexterity, repetitive movement, steadiness, strength, and size. "The exact organization of the factors at different age levels requires further analytical study. The degree to which the importance of each of these abilities varies from job to job is unknown, but it is subject to critical determination."—S. Wapner (Rochester).

[See also abstracts 2770, 2939.]

CHILDHOOD AND ADOLESCENCE

2927. Anderson, J. E. **Methods of child psychology.** In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 1-42.—A brief historical survey of methods of research in child psychology is followed by a detailed treatment of modern points of view and method. Special stress is laid on procedures (sampling, matching, etc.) to be used in carrying out further studies and on criteria for use in evaluating them. "Child psychology has passed through the first enthusiastic rush toward children as subjects of investigation in which results at any cost were sought, and has moved on to that more mature attitude which is concerned with a critical examination of results in terms of method and with deliberate attempts to devise new methods and techniques for attacking the very complex phenomena before it." 4-page bibliography.—L. J. Stone (Vassar).

2928. Arnold, D. **Impact of war on children epitomized at the Badger Ordnance Works.** *Welf. Bull. Ill. St. Dep.*, 1945, 36, 13-16.—Arnold describes the problems in the wake of establishment of a wartime industrial plant in a previously agricultural area. There was some resistance to social services because they were confused with relief agencies. The most common difficulty among the children was adjustment to school and a totally strange community. Although better cared for than ever before, they had the feeling of not belonging, and failure to orient themselves resulted in a drop in school work or in antisocial behavior. Another characteristic (abetted by plenty of unearned spending money) was irresponsibility—"We won't be here next year."—M. E. Morse (Baltimore, Md.).

2929. Barker, R. G. **Child psychology and societal reconstruction.** *J. consult. Psychol.*, 1946, 10, 29-34.—Child psychologists have acquired knowledge in three areas that are important for national and international affairs. (1) They know something about individual differences; (2) they know something about development and learning; and (3) they

have formulated significant problems and devised conceptual and experimental techniques for their solution. Although effective techniques are available for research, there is insufficient research being carried on. Government-supported research agencies are needed if child psychology is to realize its full potential in the postwar era.—S. G. Dulsky (Personnel Inst., Chicago).

2930. Carmichael, L. [Ed.] **Manual of child psychology.** New York: Wiley, 1946. Pp. viii + 1068. \$6.00.—The *Manual* is offered as "an advanced-level textbook" intended "for serious advanced undergraduate students and graduate students as well as for specialists in psychology and in such related fields as education, psychiatry, pediatrics, and medicine in general." The 19 authors and chapters contributed by each are: J. E. Anderson, *Methods of Child Psychology*; L. Carmichael, *The Onset and Early Development of Behavior*; R. M. Cruikshank, *Animal Infancy*; K. C. Pratt, *The Neonate*; H. Thompson, *Physical Growth*; A. Gesell, *The Ontogenesis of Infant Behavior*; M. B. McGraw, *Maturation of Behavior*; N. L. Munn, *Learning in Children*; F. L. Goodenough, *The Measurement of Mental Growth in Childhood*; D. McCarthy, *Language Development in Children*; H. E. Jones, *Environmental Influences on Mental Development*; W. Dennis, *The Adolescent*; M. Mead, *Research on Primitive Children*; V. Jones, *Character Development in Children—an Objective Approach*; A. T. Jersild, *Emotional Development*; K. Lewin, *Behavior and Development as a Function of the Total Situation*; E. A. Doll, *The Feeble-minded Child*; C. C. Miles, *Gifted Children*; and L. M. Terman (in association with W. B. Johnson, G. Kuznets, and O. W. McNemar), *Psychological Sex Differences*. Each chapter is followed by an extensive bibliography, and there is a 63-page index. (See also 20: 2695, 2696, 2707, 2740, 2786, etc.)—L. J. Stone (Vassar).

2931. Chen, H. P., & Irwin, O. C. **Infant speech vowel and consonant types.** *J. Speech Disorders*, 1946, 11, 27-29.—Data from 1,622 records of the speech of 95 infants from birth to 2½ years of age are analyzed to determine the equations representing the growth of vowel and consonant sounds during infancy. The curves for these equations show that at 2½ years the infant possesses nearly the full complement of adult vowel sounds but only about two thirds of the consonant types.—W. H. Wilke (U. S. Naval Reserve).

2932. Colm, H. **Psychometrics in pediatrics.** *Clin. Proc. Child. Hosp., Wash.*, 1945, 1, 234-236.

2933. Dennis, W. **The adolescent.** In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 633-666.—Major sections of this chapter of the *Manual* are: the biological changes of adolescence, behavioral phenomena associated with normal puberty, behavior phenomena in precocious puberty, and behavioral phenomena in delayed puberty. "... we have limited our survey to studies of mental-physical relationships at or near

puberty" and eschewed the view "that adolescence is a social phenomenon." Current studies "must be regarded as pioneer researches which will soon be supplemented by more extensive, more systematic, and more analytical investigations." 5-page bibliography.—*L. J. Stone* (Vassar).

2934. Dublineau, J. *L'évolution morphologique de l'adolescent.* (Morphological evolution of the adolescent.) *Ann. méd.-psychol.*, 1944, 102, 286-288.

2935. Fleege, U. H. *Self-revelation of the adolescent boy; a key to understanding the modern adolescent.* Milwaukee: Bruce, 1945. Pp. 398. \$3.50.—The results are given of a questionnaire on boys' problems in the home, school, and social life and with their own selves, filled out by 2,000 Catholic high-school boys.—(Courtesy *Publishers' Weekly*).

2936. Frank, L. K. *Waste of expertness.* *Survey Mid-Mon.*, 1946, 82, 3-4.—In serving a given child in his social setting, highly trained specialists in child psychology, education, nutrition, and other fields give single-minded devotion to their general duties. An effective program for children and youth of this war-torn generation calls for some method of concerted operation. Too often lay boards and staffs of welfare agencies and hospitals have practiced isolationism. There is a need for some community group which would collect pertinent information about the needs of children, plan conservation of special skills, promote a more generalized training of professional specialists, and prepare in many other ways the new mental health program.—*R. Lassner* (Minn. State Training School).

2937. Gesell, A. *The ontogenesis of infant behavior.* In *Carmichael, L., Manual of child psychology.* New York: Wiley, 1946. Pp. 295-331.—This chapter deals "mainly with the first two postnatal years of the human life cycle and with that outward aspect of life which goes by the familiar name of *behavior*. . . . Our task is to formulate some of the general principles which underlie the developmental patterning of his [the infant's] total action system." The discussion of behavioral development is largely subsumed under a number of principles, such as those of developmental direction, reciprocal interweaving, functional asymmetry, self-regulatory fluctuation, etc. Individual growth differences and the stability of growth patterns are discussed. 2-page bibliography.—*L. J. Stone* (Vassar).

2938. Helmholz, H. F. *Emotional disturbances of children in wartime.* *Minn. Med.*, 1943, 26, 1044-1046.—Wartime experiences may increase the frequency of emotional disturbances, but the essential nature of the disturbance remains the same as in peacetime, with similar symptoms. Feelings of insecurity in the child may be the result of broken home routine, because both parents participate in the defense, and the disruption of other factors which ordinarily make the home a center of security for the child. The father's role is more easily replaced than the mother's, but a true substitute is impossible. Acceptance of the child, his anxiety, and insecurity is essential, and the home and the school still remain

the most important sources of this acceptance. Whatever can be done to compensate for wartime disorganization of these institutions will prove immeasurably valuable to the health of children in wartime.—*D. Schneider* (Wisconsin).

2939. Hoakley, Z. P., & Frazee, H. A. *Significance of psychological test results of exogenous and endogenous children.* *Amer. J. ment. Def.*, 1945, 50, 263-271.—The revised Stanford-Binet, Form L, was administered to 18 matched pairs of mental defectives. The deficiency of one member of each pair was due to exogenous factors and of the other was of the familial type. ". . . the only statistically reliable differences occurred in the perceptual or visuo-motor field."—*C. N. Cofer* (George Washington).

2940. Jersild, A. T. *Emotional development.* In *Carmichael, L., Manual of child psychology.* New York: Wiley, 1946. Pp. 752-790.—Studies of the development of emotions are treated under the following major headings: the beginnings of emotional behavior, differentiation of emotional behavior during infancy, factors in the development of emotional processes (learning, stimulus situation, growth, etc.), some developmental trends, and studies of various emotional reactions (anger, fear, affection, "insecurity," laughter, sympathy, etc.). Areas in which further research is greatly needed are indicated. 6-page bibliography.—*L. J. Stone* (Vassar).

2941. Jones, H. E. *Environmental influences on mental development.* In *Carmichael, L., Manual of child psychology.* New York: Wiley, 1946. Pp. 582-632.—The present treatment deals with research through the year 1941. Its more extensive sections are entitled: mental growth curves, relationships to cultural-economic factors, mental and physical relationships, environmental factors in the family constellation, the effects of schooling, and children in foster homes. There have been "striking improvements in research method and . . . a clearer awareness of the complexity of the issues with which we must deal." 6-page bibliography.—*L. J. Stone* (Vassar).

2942. Knight, R. P. *Behavior problems and habit disturbances in pre-adolescent children: their meaning and management.* *J. Kans. med. Soc.*, 1946, 47, 1-7.—The opportunity for practical mental hygiene in the rearing of children is discussed in the light of common misconceptions or practices which lead parents and teachers into errors in the training of children. Four such misconceptions are outlined. Normal behavior is illustrated by means of two case histories. Problem behavior is covered by 17 topics ranging from temper tantrums to persistent transvestism. It is concluded that children will develop normally if (1) real, consistent affection is afforded by the parents, (2) consistent, firm, united parental discipline is carried out with reference to the child's needs, (3) parents have sufficient tolerance, understanding of, and ability to identify themselves with children, and (4) parents are willing to seek counsel from competent child psychiatrists when problems

arise which are beyond the parents' understanding.—*W. W. Morris* (Michigan).

2943. **Lewin, K.** Behavior and development as a function of the total situation. In *Carmichael, L., Manual of child psychology*. New York: Wiley, 1946. Pp. 791-844.—"If one wishes to use the facts concerning development, personality, social relations, cognition, and motivation . . . for the purposes of understanding, guiding, or predicting the behavior of the child, these data will have to be linked in such a way that they become applicable to a particular child at a particular time. This chapter discusses procedures and concepts which have been found to be instrumental for this purpose." The discussion is based on theoretical and experimental treatments of such concepts as the following: the psychological field, microscopic and macroscopic units, structure of the life space, force and force field, need and valence, satisfying a need, changes of needs and goals, etc. 4-page bibliography.—*L. J. Stone* (Vassar).

2944. **Lydon, M. C.** The need for a child guidance service. *Irish J. med. Sci.*, 1946, 56-63.

2945. **McCarthy, D.** Language development in children. In *Carmichael, L., Manual of child psychology*. New York: Wiley, 1946. Pp. 476-581.—There is an increased interest in language development, with a growing recognition of the "intimate relationship which exists between language and thought." Major topics reviewed are: characteristics of the literature, developmental stages, the growth of vocabulary, comprehensibility of speech, quantitative measures, sentence structure and grammatical form, the functions of language in the child's life, interrelationships of various measures of language development, relation of language development to other aspects of development, language development and individual differences, and the effect of various environmental factors. In the last dozen years there has been a shift toward emphasis on language as social behavior and its function in the behavior of the total organism; increasing search has been made for better measures and refinement of recording methods. However there remain "a number of important questions which have scarcely been touched. . . ." 13-page bibliography.—*L. J. Stone* (Vassar).

2946. **McCarthy, D.** A graphic age conversion scale. In *Carmichael, L., Manual of child psychology*. New York: Wiley, 1946. Pp. 1001-1003.—See 10: 4679.—*L. J. Stone* (Vassar).

2947. **Miles, C. C.** Gifted children. In *Carmichael, L., Manual of child psychology*. New York: Wiley, 1946. Pp. 886-953.—Major sections of this chapter define and limit the term "gifted," review the history of observations of such children, describe their characteristics, and detail their progress to maturity. Further sections discuss individual differences and adjustment problems within the gifted group and describe studies of their education. Studies of genius and of the relation between giftedness and genius conclude the survey. 8½-page bibliography.—*L. J. Stone* (Vassar).

2948. **Minnich, S.** Child guidance clinic as a community project. *J. except. Child.*, 1946, 12, 202-205.—*H. R. Myklebust* (N. J. School for the Deaf).

2949. **Munn, N. L.** Learning in children. In *Carmichael, L., Manual of child psychology*. New York: Wiley, 1946. Pp. 370-449.—"Investigations of learning in children, rather than introducing new problems and essentially novel techniques, have followed the leads of animal and adult human psychology." There have been few "researches aimed at determining how children learn." Findings in the field are discussed and summarized under the main headings: conditioned response, learning of sensorimotor skills, memory, and problem solving. The final section compares learning in adults and children. It is suggested that major "problems relating to learning in children are those of discovering the most adequate motivation conditions and the most effective procedures for the situations in which children must develop." It is held likely that the lack of fundamentally new findings in the study of learning in children is because "the phenomenon of learning is fundamentally the same whether studied in the animal, child, or adult." 9-page bibliography.—*L. J. Stone* (Vassar).

2950. **Newman, F. B.** The adolescent in social groups; studies in the observation of personality. *Appl. Psychol. Monogr.*, 1946, No. 9. Pp. 94.—This is a procedural study of techniques for describing the behavior of up to 100 junior high school pupils of each sex. Noon-hour playground behavior was rated by three judges using a "composite" scale of behavior patterns, each analytically characterized by paired opposites, and an "integral" scale consisting of gross behavior characterizations of the same traits. Clubhouse behavior was rated by four judges on a scale consisting of 20 characteristics rather fully described in terms of the two extremes and the middle of a seven-point scale, and 20 other traits described by a single adjective or phrase at each extreme. Narrative and conference records on these behavior situations and on others (excursions and parties) also were maintained. While the study as a whole extended over a period of years, the main body of observational records in the study seldom covered a period of more than six months. Reliability data, suggestions for the development of similar behavior rating scales, and examples of the scales used are included. 34-item bibliography.—*T. E. Newland* (U. S. Naval Reserve).

2951. **Piaget, J.** Une expérience sur le développement de la notion de temps. (An experiment in the development of the notion of time.) *Schweiz. Z. Psychol. Anwend.*, 1943, 1, 179-185.—Children were asked a series of questions about the time relations of flow of water from different receptacles. Special attempts were made to get at the concepts of simultaneity, duration, and dissociation of the temporal and spatial. Between the ages of 4 and 12 years, three conceptual stages were passed: (1) belief that the more rapid the flow, the longer the time of flow, (2) recognition of simultaneity but confusion of dura-

tion with quantity, and (3) correct replies to all the questions.—R. B. Ammons (Denver).

2952. Piaget, J., & Inhelder, B. *Le développement des quantités chez l'enfant*. (The development of the idea of quantity in the child.) Neuchâtel: Delachaux & Niestlé, 1941. Pp. 344.—[Abstracted review; original not seen.] The basic concept which the child must develop is the idea of conservation of matter. Experiments showed that before the age of 7 there was no stability in this concept. By 8 to 10 years, children develop the idea of conservation of mass, and after 11 or 12 years, the conservation of volume. Observations were made on the development of the ideas of atomism, mass, and number. These findings were integrated and interpreted, using the ideas of grouping and conceptual reversibility of operations.—R. B. Ammons (Denver).

2953. Potashin, R. A sociometric study of children's friendships. *Sociometry*, 1946, 9, 48-70.—Friends are defined as pairs of children in which each gives to the other the highest choice in a sociometric test in the classroom. Non-friends are defined as pairs of children in which one gives the other his highest choice, but the latter does not reciprocate. Comparison of friends with non-friends indicates that sociological factors are of very little significance in determining friendships, although they are of slightly greater importance than physical or intellectual similarity. Sociometric analyses of the group situation show that a child who is one of a pair of friends is usually well accepted by the rest of his classmates. The child who is not a friend is not so well accepted. An experimental discussion technique demonstrated that friends stayed voluntarily in the situation longer, that they talked more freely, and that they required less adult prompting and direction than non-friends.—G. A. Kimble (Brown).

2954. Pratt, K. C. The neonate. In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 190-254.—The neonatal period extends roughly from birth to age one month. The history of neonatal study is summarized and the physiology of the neonate presented. Extensive sections deal with the nature of sensitivity to each type of stimulation. The range of responses available is discussed, and brief sections are devoted to learning, emotions, sleep, and various group differences. 10-page bibliography.—L. J. Stone (Vassar).

2955. Schumacher, H. C. Contribution of the child guidance clinic to the problem of mental deficiency. *Amer. J. ment. Def.*, 1945, 50, 277-283.—Problems in regard to parental acceptance of a defective child are discussed.—C. N. Cofer (George Washington).

2956. Terman, L. M., Johnson, W. B., Kuznets, G., & McNemar, O. W. Psychological sex differences. In Carmichael, L., *Manual of child psychol-*

ogy. New York: Wiley, 1946. Pp. 954-1000.—This chapter is largely limited to literature appearing since 1920 and dealing with subjects below college age in reasonably unbiased samplings of 50 or more. It is centered around these major topics: the physical background of sex differences, sex differences in interests, conative behavior, social behavior, character traits, cultural influences on personality, and mental abilities. 8-page bibliography.—L. J. Stone (Vassar).

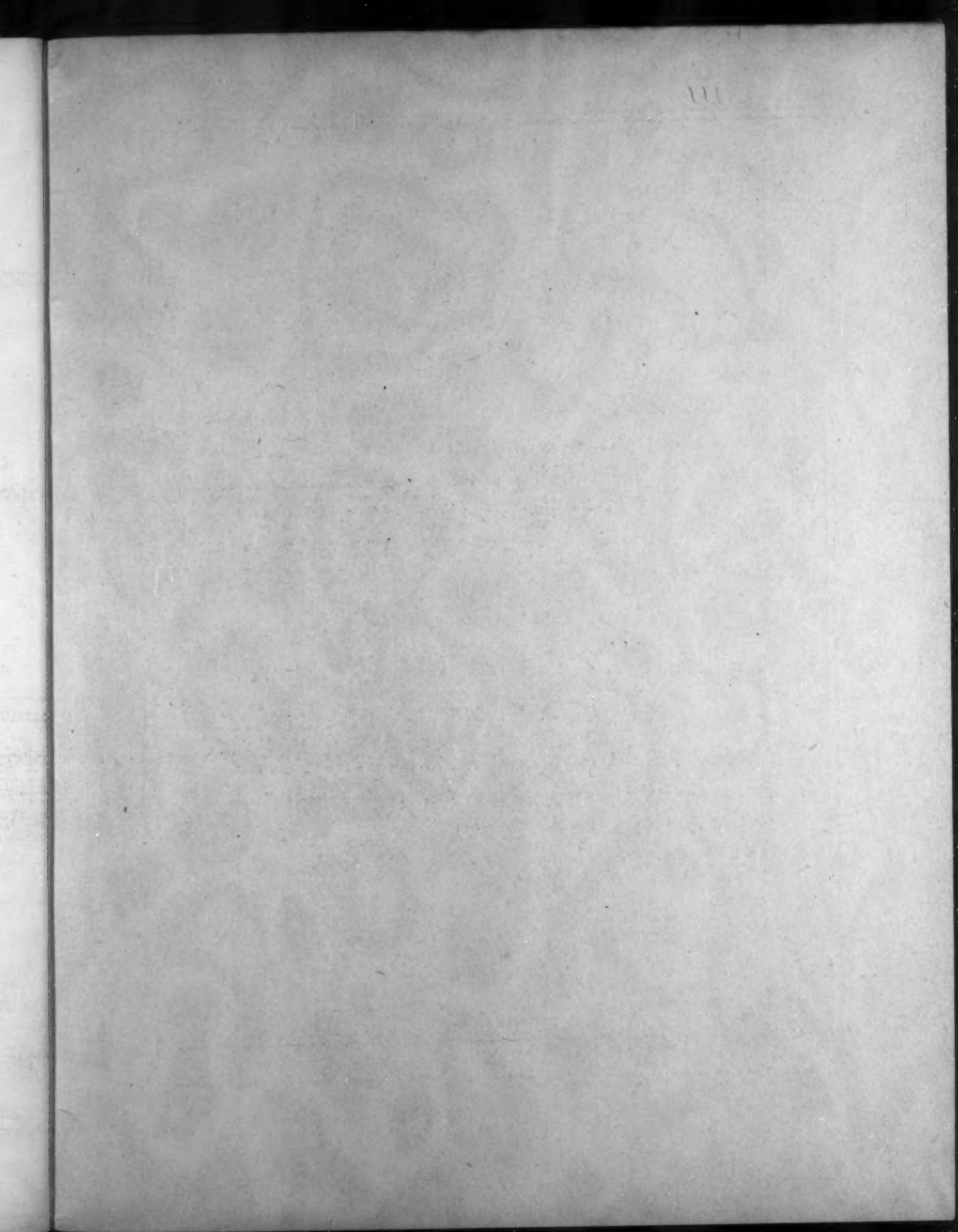
2957. Thompson, H. Physical growth. In Carmichael, L., *Manual of child psychology*. New York: Wiley, 1946. Pp. 255-294.—"The child psychologist must know the outstanding facts of physical growth at least to the extent that they pertain to behavior." The history and techniques for study of physical growth are briefly presented. General growth trends are then summarized as are the outstanding growth features of infancy, childhood, and adolescence. Variations in body types and in weight and nutritional status are considered. Final sections deal with special growth characteristics of the head and face, skeletal framework, teeth, etc. The author concludes that "there is need for research emphasizing factors in mental and physical growth rather than mass correlations." 6-page bibliography.—L. J. Stone (Vassar).

2958. Viola, W. *Child art*. (2nd ed.) London: University of London Press, 1944. Pp. 206. 15s.—M. D. Vernon (Cambridge).

2959. Wallon, H. *L'évolution psychologique de l'enfant*. (The psychological development of the child.) Paris: A. Colin, 1941. Pp. 224.—The important characteristics of mental development are described and integrated for the various stages of infantile evolution. The developmental aspects of such psychological functions as affectivity, personality, language, imitation, conflict, and thought are considered. Throughout the book the attempt is made to give an integrated picture of the child at various stages of growth.—(Courtesy *Année psychol.*)

2960. Wolberg, L. R. Child institutionalization as a psychotherapeutic procedure. *Psychiat. Quart. Suppl.*, 1944, 18, 167-178.—Case material is drawn upon to illustrate the therapeutic effect the hospital environment may have upon the child, aside from such procedures as play techniques, art projects, and kindred psychotherapies. The object in the hospital treatment of the child is to reintegrate him in his attitudes toward authority, toward himself, and toward his impulses to a point where his abnormal drives serve no useful purpose. To accomplish this, emphasis is placed upon an atmosphere of security as well as upon association with emotionally stable adults whose own personality problems do not handicap their relationships with children.—W. E. Artus (Columbia).

[See also abstracts 2638, 2645, 2680, 2695, 2707, 2740, 2786, 2791, 2802, 2819, 2823, 2824, 2918.]



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